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RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

JANUARY 21, 1952

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Vol. 132, No. 3 January 21, 1952

RAILWAY AGE

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Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn., price, $3.00 a year to railroad employees only in U. S., U. S. possessions and Canada, payable in advance and postage free. Subscription price to railroad employees elsewhere in the Western Hemisphere, $10.00 a year; in other countries, $15.00 a year. Two-year subscriptions double the one-year rate. Single copies 50¢, except special issues $1. Address Robert G. Lewis, Assistant to President, 30 Church Street, New York 7.

Editorial and Executive Offices at 30 Church Street, New York 7, N. Y., and 79 West Monroe Street, Chicago 3, Ill. Washington 4, D. C.: 1081 National Press Building—Cleveland 13: Terminal Tower—Portland 5, Ore.: Terminal Sales Building—Los Angeles 17: 1127 Wilshire Boulevard—San Francisco 4: 1204 Russ Building—Dallas 4: 2909 Maple Avenue.

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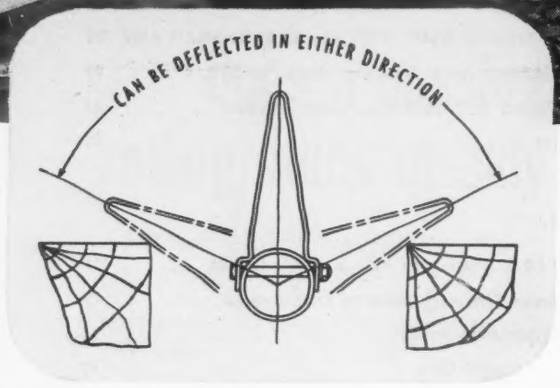
Railway Engineering & Shipping Review Marine Catalog & Buyers' Directory
Books covering transportation and building

Railway Age is a member of Associated Business Publications (A. B. P.) and Audit Bureau of Circulation (A. B. C.) and is indexed by the Industrial Arts Index and by the Engineering Index Service. Printed in U. S. A.



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WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, eleven months
1951 ..... $ 9,487,977,087
1950 8,545,280,558

Operating expenses, eleven months
1951 ..... $ 7,392,178,948
1950 6,413,820,619

Taxes, ten months
1951 ..... $ 1,101,000,143
1950 1,041,182,757

Net railway operating income, eleven months
1951 ..... $ 807,862,943
1950 925,024,752

Net income, estimated, eleven months
1951 ..... $ 543,000,000
1950 662,000,000

Average price railroad stocks
January 15, 1952 ..... 55.11
January 16, 1951 ..... 58.37

Car loadings, revenue freight
One week, 1952 612,780
One week, 1951 662,427

Average daily freight car surplus
January 12, 1952 12,617
January 13, 1951 6,876

Average daily freight car shortage
January 12, 1952 4,264
January 13, 1951 17,962

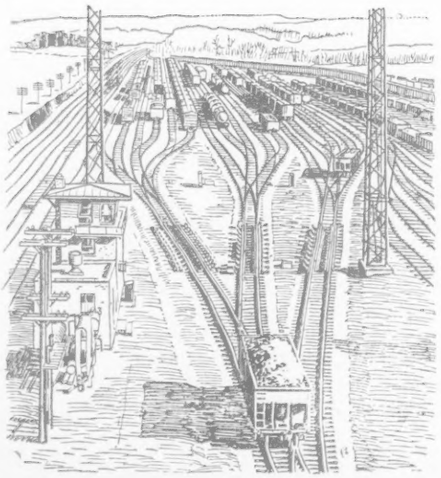
Freight cars delivered
December 1951 8,458
December 1950 5,700

Freight cars on order
January 1, 1952 123,947
January 1, 1951 124,489

Freight cars held for repairs
December 1, 1951 88,911
December 1, 1950 97,571

Net ton-miles per serviceable car per day
September 1951 1,074
September 1950 1,084

Average number railroad employees
Mid-December 1951 1,243,095
Mid-December 1950 1,277,119



In This Issue . . .

JOHN W. SMITH, administrative vice-president of the Seaboard Air Line, has been elected its president, to succeed Legh R. Powell, Jr., who has become chairman of the board (page 43). Other developments of the week, reported in the news pages, include the usual large number of year-end changes among officers of railroads and railroad supply companies; Transportation Corps orders for 4,263 cars and 12 diesels and inquiries for 1,119 cars and 68 diesels; a B. & M. order for three R.D.C.'s; hearings on the railroads' application for the rest of the 15 per cent Ex Parte 175 rate increase; further proof (if any is needed) of increases in railroad efficiency and of the impact of rising wages, both in the latest "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics (page 13); denial of R.E.A.'s request for an additional rate increase.

THAT B. & O. office methods and procedures group is up with a new money-saving idea—"long-distance" dictating—which the group's manager, C. A. Strickland, describes on pages 32-33.

BETTER MAINTENANCE OF WAY WORK requires special emphasis on five points—track construction commensurate with traffic volume, conservation of materials, training of supervisory personnel, use of machinery, and better human relations. So the Southern's chief engineer, J. B. Akers, told the Metropolitan Maintenance of Way Club in a recent address, in which he covered all five topics. His talk is abstracted in this issue, beginning on page 39.

"AUDIO-VISUAL AIDS"—movies, film strips, etc.—are an increasingly important adjunct to training and instruction, in industry no less than in schools, the armed forces and elsewhere. How they can be successfully applied on and by a railroad is indicated by the experience of the Illinois Central, which is perhaps one of their largest railroad users. Its organization and techniques are outlined, beginning on page 34.

In Washington . . .

THE LEGISLATIVE POT began to simmer as soon as Congress reconvened, with introduction by Senator Johnson, chairman of the Senate interstate and foreign commerce committee, of 19 bills dealing with transportation—all summarized on page 16. There is, of course, general expectation of a fairly short election-year session, so, trans-

WEEK AT A GLANCE

portation-wise, the pot may never reach the boiling point. But the bills themselves are worth study, as indicative of what the national lawmakers may be considering in 1953.

MORE STEEL for freight cars, at least in 1952's third quarter, may be the outcome of last week's "exchange of views" on the subject between A.A.R. President W. T. Faricy and Defense Mobilizer C. E. Wilson. Skimpy second-quarter allotments, as Mr. Faricy pointed out, will be just about sufficient to offset normal car retirements, with no provision for the needed increase in total supply.

WHAT MAY BE a major development in the railroads' quest for equitable treatment by government is the January 9 letter from Herschel Newsom, master of the National Grange, to N.Y.C. President Gustav Metzman. The Grange, of course, was the original proponent of railroad regulation, 65 years ago. Now, says Mr. Newsom, it finds reason seriously to question the results of regulation, as presently applied, and finds also need for modernization of the whole national transportation policy (page 14).

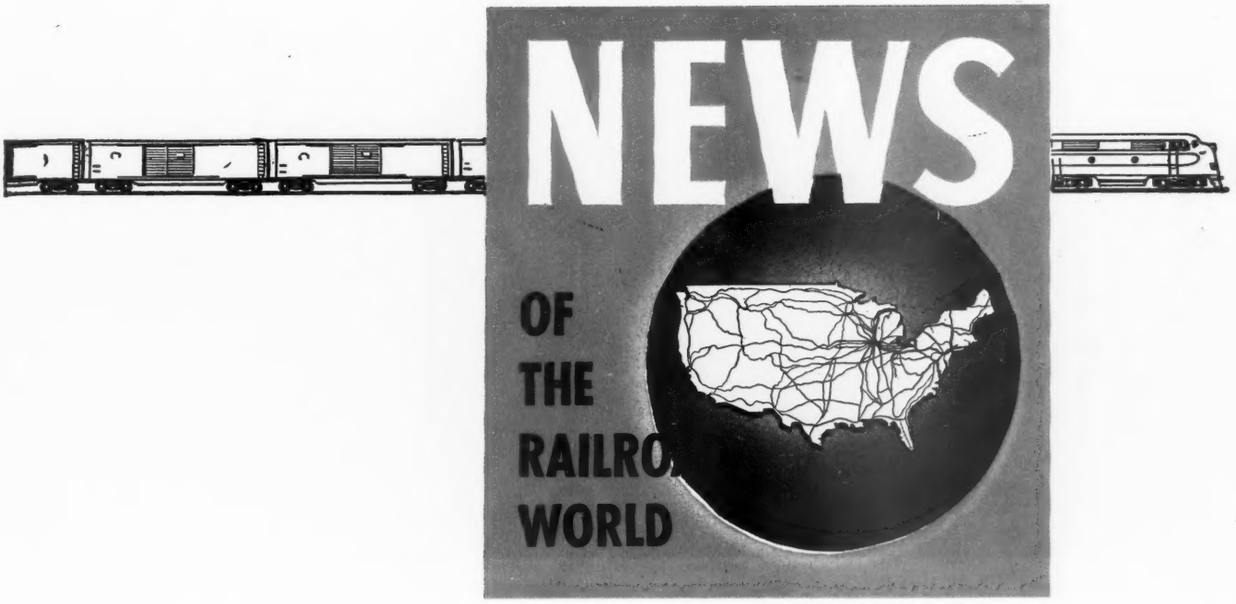
GEORGE W. BAUGHMAN, whose election as vice-president in charge of engineering activities of the Union Switch & Signal Division of Westinghouse Air Brake Company is announced in the news pages of this issue, is an electrical engineering graduate of Ohio State University. After three years with the Bell Telephone System, he joined Union Switch & Signal in 1923, and has been engaged in field and development work associated with railway signaling and braking. He has had extended laboratory and field experience in automatic train control, automatic cab signaling, coded track circuits and centralized traffic control systems. Mr. Baughman was appointed assistant chief engineer in charge of electronics on July 1, 1944, chief engineer on March 1, 1945, and assistant vice-president in charge of engineering on January 1, 1950.

. . . And Elsewhere

"WE WONDER," says the magazine American Business in its December issue, "what would happen if a department store closed up shop on Saturdays. We think the idea of closing railroad [city] ticket offices on Saturday is just about as sensible as closing a restaurant, department store or a theater. Of course we are familiar with rail management's reasons — can't arrange the labor supply to keep open six days a week. We are reluctant to believe that the railroad labor supply is any less plentiful than the supply of labor available for . . . other enterprises which manage to stay open to take in cash on Saturdays."

END OF A MAJOR BUS SYSTEM? Greyhound Corporation has offered to buy the 19,000-route-mile American Bus System and it appears as if the offer will be taken. "The Hound," in turn, is expected to offer a number of American's routes to the Continental Bus System, thereby opening new territories to each. It is expected, too, that considerable duplicate mileage will be entirely abandoned, but all of these moves depend on a stamp of approval from the I.C.C.

A SUGGESTION THAT semi-trailer and trailer-trucks "seem to get into accidents out of all proportion to the number on the highways" and that "accidents involving these trucks, on the average, are much worse in property damage, traffic tie-ups and human casualties" was advanced on this page in our September 10, 1951, issue. Apparent confirmation of these conclusions appears in a 12-page illustrated booklet, The Jackknifing Menace, recently issued by the American Automobile Association. I.C.C. reports, the booklet says, showed 525 accidents in which property loss, personal injury or death resulted from jackknifing incidents in 1949. "Since only about one in every eight trucks is under complete I.C.C. jurisdiction," it adds, "the importance of jackknifing as a national problem is apparent. . . . One of the tragic things about jackknifing accidents is that the fatality rate and property damage always seem to run substantially higher in this type of accident than in others."



Railroad Presidents Testify at I. C. C. Hearing on Rate Increase Petition

Carriers seeking further rise of 7.2 per cent — which would bring Ex Parte 175 advance up to full 15 per cent originally sought in that case

Hearings got under way January 14 at Washington, D. C., on the railroads' petition for further freight-rate increases which would bring the Ex Parte 175 rise up to the full 15 per cent originally sought in that case. The hearings are being held before the Interstate Commerce Commission's Division 2, consisting of Commissioners Aitchison, Mahaffie, Splawn and Alldredge.

Also sitting are members of a cooperating committee of state commissioners, consisting of Chairman L. E. Lindquist of the Minnesota Railroad and Warehouse Commission, Commissioner Kenneth Potter of the Public Utilities Commission of California, and Commissioner J. S. James of the North Carolina Utilities Commission. The railroad presentation is under the general direction of E. H. Burgess, vice-president and general counsel of the Baltimore & Ohio, and 15 presidents were among the railroad witnesses scheduled to appear.

The petition's request is for an increase which would raise present rates by about 7.2 per cent over-all. The Ex-Parte 175 increases previously authorized average only about 6.6 per cent. (*Railway Age* of August 20, 1951, page 55.)

There were pre-hearing reports to the effect that the petition might be amended to ask for an increase larger than 7.2 per cent in view of further cost increases, including the "escalator" wage raises of four cents per hour which became effective January 1. As to that, however, President Walter S. Franklin of the Pennsylvania, the first railroad witness, told Commissioner Aitchison that no amendment to the petition was contemplated at this time.

The commissioner asked if Mr. Franklin had "any confidence" that the petition's present proposal will be "all you'll be asking for a while." The P.R.R. president said "no," adding that he couldn't predict what further increases in wages and other costs would be encountered.

Commissioner Aitchison then explained that he was asking if the railroads needed more than they were asking. "I think we do," Mr. Franklin replied. He went on to explain, however, that the determination to make no change in the petition "at this time" was reached because "we hope and expect that we can get a prompt decision on this particular situation now before you."

Tentative schedules when this issue went to press indicated that railroad witnesses would be testifying throughout all of last week's sessions. Intervening parties had requested time aggregating nearly 41 hours for the presentation of their evidence. Among these parties are government agencies which oppose the railroad proposal, including the Department of Commerce, Department of Agriculture, Office of Price Stabilization, General Services Administration, and Tennessee Valley Authority.

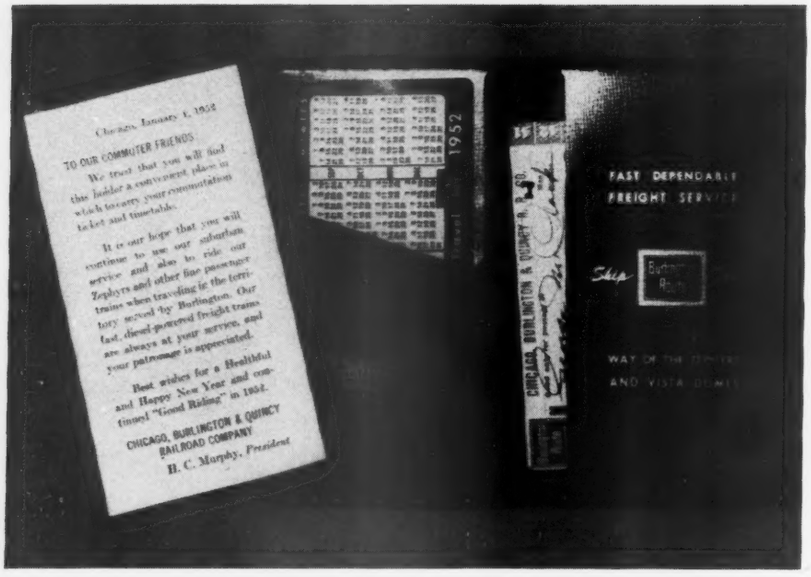
Making the opening statement of the railroad presentation, B. & O. Vice-President Burgess said that the cost of producing the railroad service that the national defense and civilian economy now demand has increased by more than $1,167 million annually since the fall of 1949. It is this rise in operating costs and the extent to which it has cut down "already inadequate" earnings that has made it necessary for the railroads to seek the balance of the 15 per cent increase, Mr. Burgess added.

6.6% Increase "A Disappointment"

The 6.6 per cent increase granted in August, he continued, "was a great disappointment to the railroads of the country and amounts to less than half of the revenue relief they requested and still believe necessary." The B. & O. vice-president went on to say that the full balance of the 15 per cent increase requested would put net railway operating income on an annual basis of $1.2 billion, a rate of return on net investment of 4.59 per cent.

"By all applicable tests," this would remain "far from being in excess of a fair return," Mr. Burgess concluded.

President Franklin of the Pennsylvania declared that the ability of the eastern railroads to continue their improvements for defense, and to prop-


Chicago, January 1, 1952
TO OUR COMMUTER FRIENDS
We trust that you will find
this holder a convenient place in
which to carry your commutation
ticket and timetable.
It is our hope that you will
continue to use our suburban
service and also to ride our
Zephyrs and other fine passenger
trains when traveling in the terri-
tory served by Burlington. Our
fast, diesel-powered freight trains
are always at your service, and
your patronage is appreciated.
Best wishes for a Healthful
and Happy New Year and con-
tinued "Good Riding" in 1952.
CHICAGO, BURLINGTON & QUINCY
RAILROAD COMPANY
H. C. Murphy, President
1952
FAST DEPENDABLE
FREIGHT SERVICE
CHICAGO, BURLINGTON & QUINCY R. R. CO.

FOR BURLINGTON COMMUTERS—A NEW YEAR'S GIFT and a wish for "good riding in 1952" from President Harry C. Murphy. Given with the purchase of each commutation ticket, the black plastic folder is designed to hold not only the ticket, but also the local timetable and a pocket-type calendar

erly maintain their properties, service, and credit, demands quick and favorable action by the commission. "Based on present levels of wage and material costs, the effect of granting the increase would give the Pennsylvania net income at an annual rate of $48,000,000, compared to $33,000,000 now estimated for 1952 with present rates, and $26,227,000 estimated for 1951," Mr. Franklin also said. He noted that a net income of $48,000,000 would mean a return of less than 4 per cent on investment, and he put P.R.R.'s 1951 return at 2.52 per cent.

Rates "Lag Behind" Costs

President R. L. Williams of the Chicago & North Western testified that increased operating costs have now cumulated "far beyond" the ability of the railroads to offset them by further improvements in operating efficiency in the foreseeable future. "Notwithstanding the succession of rate increases previously authorized," he said, "the charges for this industry's product lag far behind the procession of increases in industrial and commercial prices in general. Absorption by the railroads of their greatly increased expenses, without any compensating increases in their revenues, is continually reducing the cash resources of the railroads so that an adequate margin of safety between income and outgo no longer exists. . . It can only lead to an inferior and inadequate transportation system and ultimate disaster for the nation."

President J. P. Kiley of the Chicago, Milwaukee, St. Paul & Pacific stressed the necessity for building up financial stability to preserve railroad credit. He pointed out that equipment trust certificates were the only securities which most railroads could sell to obtain new capital. Except for the war years, Mr. Kiley also noted, the railroad industry has not earned a "reasonable" rate of return.

President William White of the Delaware, Lackawanna & Western testified that the increases proposed would fail to offset increased expenses and taxes imposed on his road. He noted that the Lackawanna's rate of return averaged only 3.13 per cent during the 1942-51 period. "This is clearly inadequate," Mr. White added. "During these years when there was a good volume of business, we should have been earning high profits." Most of the other railroads are in like circumstances, Mr. White also said; and he insisted that "merely matching increased costs is wholly inadequate."

Cash Balances Falling

President R. B. White of the Baltimore & Ohio said the additional annual revenue resulting from the rate increase of last August would meet "less than one-half" of the rises in wages and prices which his road has encountered. He also presented figures indicating how the cash balances of the B. & O. have been falling. "Obviously," Colonel White warned, "further reducing our funds cannot continue without calamitous results." Meanwhile, he explained that his road has a program for economy-producing service improvements over the next five years, which would involve cash outlays totaling about $150 million. But, he added, that program "is entirely contingent upon available funds."

President Arthur K. Atkinson of the Wabash said that freight rate increases of recent years have not yielded enough for current needs, and thus have provided nothing to permit management planning for the future. Mr. Atkinson discussed Wabash finances in some detail, noting that its rate of return for 1951 was 3.89 per cent. "It is my opinion," he asserted, "that this is not sufficient to provide adequate capital for improvements and to meet our necessities, and at the same time leave something for the stockholders."

Would Curtain Improvements

President P. W. Johnston of the Erie said that his road would be forced to curtail or abandon its program of capital improvements unless the petition is granted. Such programs, Mr. Johnston explained, "must be tailored to the income we may reasonably anticipate." After discussing other possibilities — such as operating economies and traffic increases — and finding that none of them was a prospective source of enough additional revenue, Mr. Johnston concluded that "the only way to provide the necessary income is by an increase in rates and charges."

President John E. Tilford of the Louisville & Nashville outlined the long-range effects on that road of constantly increasing operating costs. In the 1942-1952 period, he said, L. & N. operating expenses increased 86 per cent while its operating revenue rose only 39 per cent. Net railway operating income actually decreased by one per cent. In urging the commission to act favorably on the petition, Mr. Tilford said the revenue problem involved "is primarily the responsibility of management," and management "should be given the opportunity to meet its responsibility."

President Joseph A. Fisher of the Reading said that if railroads are to strengthen their financial position they must do so in periods of high traffic volume like the present. Instead, he warned, the industry's position is being weakened. "Any realistic appraisal" of the industry's need for higher rates must consider not only the advances in wages and prices already encountered, but also the "probability" of further increases, Mr. Fisher suggested. This is important, he added, because of the lag which "inevitably" occurs between the dates when the railroads experience their increased costs and the effective dates of the rate increases which are intended to offset them.

Vice-President Willard F. Place of the New York Central told the commission that a railroad cannot live indefinitely on the "hand-to-mouth" basis that has characterized post-war operations of the Central. Its 1951 rate of return—2.1 per cent—and its prospective 1952 rate of 1.93 per cent are "unreasonably low," Mr. Place asserted. He called upon the commission to help the railroads increase their return to "a minimum of at least 6 per cent."

Vice-President E. F. Bidez of the Central of Georgia described the "tra-

gic plight" of what he called financially-disrupted roads. During the 1946-1950 period, he said, his road suffered a net deficit in two years; and it never realized a rate of return of more than the 2.38 per cent made in 1950.

L. L. Knight, comptroller of the Seaboard Air Line, testified as to the extent to which that road's costs have continued to rise above increases in revenues. He also referred to the shortage of freight cars, saying that the only way to relieve it is to purchase new cars, "which takes money."

Other railroad witnesses, including several additional presidents and Dr. Julius H. Parmelee, vice-president of the Association of American Railroads and director of its Bureau of Railway Economics, were scheduled to testify at sessions held after this issue went to press.

"Marked Improvement" in Railroad Efficiency Noted by I. C. C. Bureau

"Monthly Comment" compares performance in first 10 months of 1951 with that of same 1950 period; also shows that average hourly pay of railroad employees has reached $1.68

Efficiency indicators reflected a "marked improvement" in railroad operating performance during the first 10 months of 1951 as compared with the same period of 1950, the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission reported in its latest "Monthly Comment."

The issue also presented figures showing that in the January-October period of 1951, the average straight time compensation per hour of railroad employees (excluding executives, officials and staff assistants) reached $1.68, an increase of 133.3 per cent above the 1939 average of 72.1 cents. Other articles in the issue included a breakdown of 1950's carload traffic by type of rate; a comparison of gross ton-miles and revenues and expenses of the 1940-1951 period; a report on recent trends of bituminous coal traffic and revenue therefrom; and an analysis indicating the average circuity of routes over which carload traffic moved in 1947.

The bureau's favorable report on the efficiency of last year's freight operations was based on figures in the accompanying table which is reproduced from the "Comment." Its discussion of the operating showing included this comment:

"Four important indicators of freight car utilization, car miles per freight car day, net ton-miles per freight car day, net ton-miles per loaded car-mile (average load), and per cent loaded of freight car-miles, were more favorable in the 1951 period than in 1950. Significant operating averages reflecting freight train performance, such as cars per train, net tons and gross tons per train, gross ton-miles per train hour, were all higher in the 1951 period than in 1950, as well as higher than those in 1944, the year of peak World War II traffic . . . In the 1951 period net ton-miles per freight car day, an important measure of operating performance, was 10 per cent below the level of 1944 but . . . exceeded that of 1950 by 9 per cent."

AVERAGE CIRCUITY BY MAJOR COMMODITY GROUPS AND SHORT-LINE LENGTH OF HAUL

Mileage Blocks	All Comm. Per Cent	Prod. Agri. Per Cent	Animals & Prod. Per Cent	Prod. Mines Per Cent	Prod. Forests Per Cent	Mfgs. & Misc. Per Cent
1 - 49	14	30	.	6	6	19
50 - 99	16	19	0	13	16	19
100 - 199	16	20	4	16	12	18
200 - 399	15	16	10	13	11	18
400 - 599	14	18	6	12	10	17
600 - 999	14	12	8	18	13	16
1000 - 1399	13	11	8	14	13	15
1400 & Over	12	12	5	21	10	12
Total ...	14	13	8	14	11	15

FREIGHT TRAIN SERVICE OPERATING AVERAGES
CLASS I STEAM RAILWAYS

Item	Ten months ended October 31 1951	1950	1944	1939	1929
Net ton-miles per mile of road per day	8,330	7,489	9,540	4,226	5,731
Car-miles per freight car-day	44.1	42.3	49.7	31.2	32.8
Freight car-miles per train-mile:					
Loaded	39.6	38.6	34.9	30.2	30.3
Empty	20.2	20.2	18.4	18.1	17.5
Total	59.8	58.8	53.3	48.3	47.8
Gross ton-miles per train-mile	2,780	2,672	2,421	1,974	1,877
Net ton-miles per train-mile	1,305	1,221	1,144	807	812
Net ton-miles per freight car-day	961	879	1,067	521	557
Gross ton-miles of locomotives and tenders per locomotive-mile	301	300	266	253	220
Net ton-miles per loaded car-mile	32.9	31.6	32.8	26.7	26.8
Percent loaded of freight car-miles	66.3	65.7	65.6	62.5	63.4
Train-miles per train hour	16.9	16.9	15.7	16.7	13.1
Gross ton-miles per train hour *	46,435	44,525	37,552	32,704	24,625
Percent unserviceable:					
Freight locomotives	19.2	20.2	12.3	30.4	16.4
Freight cars on line	4.7	6.4	2.5	11.7	6.1

* Excludes locomotives and tenders.

Wages 50.7% of Revenues

Last year's January-October average of $1.68 for straight time compensation per hour compared with 1950's 12-months average of $1.54. Meanwhile, however, the total 1950 payroll of Class I roads, $4.59 billion, was down from the all-time high of $4.77 billion reached in 1948.

During the first 10 months of last year, the total compensation was equivalent to 50.7 per cent of total operating revenues; and the 1950 percentage was 48.5. During the 1939-1950 period, this ratio ranged from a high of 54.7 per cent in 1946 to a low of 38.9 per cent in 1943.

The breakdown of carload traffic by types of rate was based on figures derived from the bureau's waybill studies. They showed that 69 per cent of the 1950 tonnage moved at interstate rates, and that this accounted for 89 per cent of the total revenue.

Ninety-one per cent of the interstate tonnage moved on commodity rates and about seven per cent on exceptional ratings, these two categories representing 79 per cent and 15 per cent, respectively, of the revenue. "In contrast," as the bureau put it, "only about one per cent of the total tonnage of interstate traffic moved on classification ratings but this tonnage accounted for approximately four per cent of the total revenue. Less than a half per cent of the tonnage moved on types of rates other than the foregoing three such as all-commodity rates and section 22 quotations, although this traffic accounted for about two per cent of the revenue."

The comparison of gross ton-miles and revenues and expenses of the 1940-1951 period included a showing by index numbers based on 1940 as 100. The 1950 index of gross ton-miles was 134, while the operating revenue and operating expenses indices were 220 and 229, respectively. During the 11-year period, the gross ton-mile index reached a peak of 168 in 1944. The revenue and expense indices were at their tops—225 and 242, respectively—in 1948.

On a per-million-gross-ton-miles basis, the 1950 revenue and expense indices were 164 and 170, respectively. The 1950 revenue per million gross ton-miles was $5,965 and the expenses were $4,445, compared with respective 1940 figures of $3,635 and $2,614. For the first 10 months of 1951, the figures, in turn, were $6,101 and $4,776; the index numbers, 168 and 183.

Bituminous Coal Traffic

The data on bituminous coal traffic showed that the tons originated in 1950 totaled 361.8 million, an increase of 21 per cent above 1940's 298.3

million tons. The tonnage originated during last year's first six months was 14.3 per cent above that of the same 1950 period—188.1 million tons compared with 164.5 million tons.

The latter resulted in a revenue increase of 13.7 per cent, or a rise from $511.4 million in the 1950 period to $581.7 million in 1951. The total 1950 revenue from bituminous coal traffic, $1,118.5 million, reflected an increase of 69 per cent above the 1940 figure of $662.2 million. The revenue per ton rose 39 per cent—from $2.22 in 1940 to $3.09 in 1950.

Meanwhile, the cost per ton to the railroads of coal purchased f.o.b. mines rose 139 per cent—from $1.88 in 1940 to $4.49 in 1950. The figures showing tonnages purchased reflect the influence of dieselization programs — the 1950 and 1949 totals having been only 73 per cent of the 1940 figure. There was a further drop in 1951's first 10 months when Class I roads purchased 45.2 million tons of coal, 13.3 per cent less than the comparable 1950 figure of 52.1 million tons.

The circuity figures indicated that the average circuity of routes over which 1947 carload traffic moved was 14 per cent. This was in close agreement with results of analysis made in 1942 and 1944 by the former Office of Defense Transportation, but it was above the 11 per cent figure developed by the Federal Coordinator of Transportation on the basis of traffic originated on December 13, 1933.

The bureau's summary of its analysis, which was based on the waybill studies, was presented in a table which is reproduced herewith from the "Comment."

Grange Would Modernize Transportation Policy

"It seems clearly apparent that our total transportation policy must be modernized," Herschel D. Newsom, master of the National Grange, told Gustav Metzman, president of the New York Central and chairman of the Eastern Railroad Presidents Conference, in a letter made public by Mr. Metzman on January 10.

The letter, which was written in reponse to an inquiry from Mr. Metzman, has been made the basis of full-page advertisements in a number of eastern metropolitan newspapers. Its complete text follows:

"You have inquired concerning the attitude of the National Grange toward the need for a realistic modernization of the national transportation policy.

"When the Grange proposed regulation of the railroads in 1876, they had a virtual monopoly. The only other forms of transportation were water and horsepower. Since that time, conditions have changed so that the National Grange now feels that our entire transportation policy should be carefully re-examined.

"The National Grange one year ago called upon Congress to set up a commission to study the whole field of transportation with the sole objective of developing a transportation system which will assure the public of adequate facilities at the lowest possible cost consistent with service.

"The National Grange at its most recent session called upon 'State and Federal governments and their transportation agencies to encourage the most efficient use and improvement of all forms of transportation on the free enterprise basis and with the least governmental regulation.' They said that 'No one form of transportation should be indiscriminatorily taxed or regulated for the benefit of another form; free competition should exist between all forms of transportation without overlapping ownership . . .' and that 'competition among the various forms of transportation should be maintained. . . .'

"Rising transportation costs coupled with the financial difficulties of the railroads—particularly of those in the Eastern United States—at the same time that we have an increasing volume of freight compel us to question the regulations now applied, for in effect often times they prevent railroads from meeting competition from other forms of transportation. The railroads have a vital role in our national economy.

"We are much concerned with the consequences of the present regulatory policy. Recent events have made it all too evident that railroad bankruptcy means eventual government ownership or government subsidy—neither solution is tolerable.

"It seems clearly apparent that our total transportation policy must be modernized. It may be that the declaration of policy in the Transportation Act of 1940 coupled with the subject matter of the Brookings Institution study entitled 'A National Transportation Policy' and the information brought out in the hearings held by the Senate Committee on Interstate and Foreign Commerce can provide the basis of the modernized policy. While it is perhaps the railroads' responsibility to carry this story to the public, yet I believe we must all be concerned. We are, therefore, suggesting that this be a subject of study in Grange meetings throughout America."

The Grange, the country's largest and oldest agricultural organization, was the major proponent of railroad regulation when such regulation was first established in 1887, and it has subsequently been a consistent advocate of such regulation.

THE BANGOR & AROOSTOOK, and the northern Maine industries and activities which it serves, were featured in this recent window display in the state of Maine's New York information bureau in Radio City. The big center picture shows a solid train of the BAR's special blue, white and red "State of Maine Products" box cars, while the bottom pictures show other BAR equipment

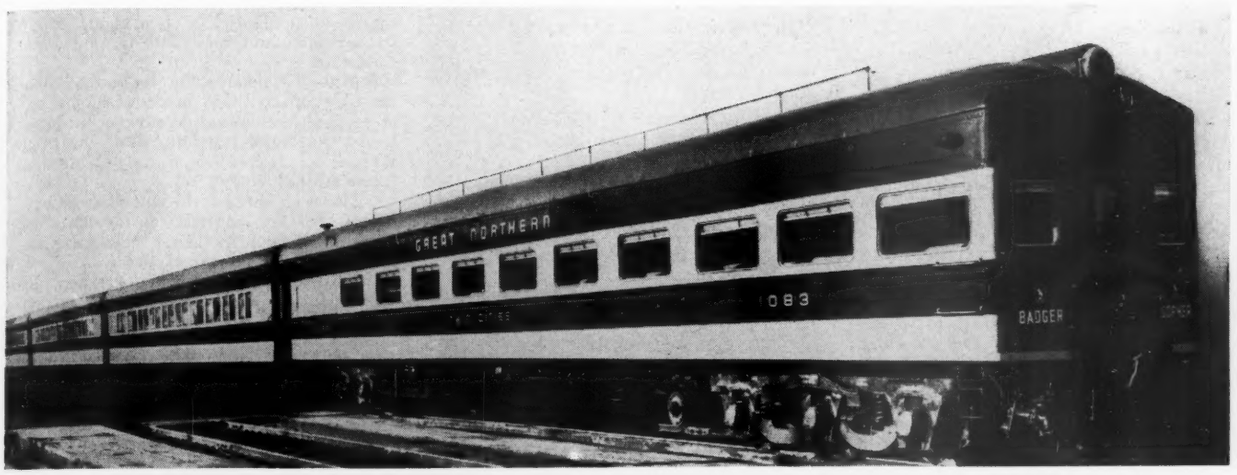
Roads Promised More Steel for Freight Cars

Faricy-Wilson exchange may lead to higher allotments

A result of the recent exchange of statements and comments between Defense Mobilizer C. E. Wilson and President William T. Faricy, Association of American Railroads, seems to be this: Hope for more steel for freight cars in the third quarter this year.

A joint statement to this effect was issued January 14 by Mr. Wilson and Defense Transport Administrator James K. Knudson.

"The necessary steps will be taken to insure the allotment of additional amounts of steel for the 1952 third quarter railroad building program."



FOR ITS TWIN CITIES-TWIN PORTS SERVICE, the Great Northern has introduced two identical streamliners, each consisting of reconditioned semi-lightweight coaches and a rebuilt observation parlor car with a dining section for light food and beverage service. Each consist does a round trip daily between St. Paul, Minn., and Minneapolis and Superior, Wis., and Duluth, Minn., operating as the "Badger" in one direction and the "Gopher" in the other—hence the dual tail signs. Decorations in the parlor car are highlighted by the etched glass bulkhead panels depicting the gopher and the badger—symbols of the states of Minnesota and Wisconsin.

The coaches, which were already equipped with air conditioning and roller bearings, were given new upholstery, floor covering, heating controls and decorations. Each seats 58. The two parlor cars—named "Twin Ports" and "Twin Cities"—have been equipped with radio, indirect fluorescent lighting, double-paned panorama windows, new air conditioning and roller bearing trucks. The exterior color scheme of all cars is identical with that used on other G.N. streamliners

the statement said. It added that present steel production levels will not permit much, if any, additional steel for the second quarter.

The statement quoted Mr. Wilson as saying he was "thoroughly sympathetic" with the overall needs of transportation. It said he agreed "that the needs of the freight car program should be kept prominently in mind by the materials allocating officials."

Events leading up to this joint statement began the night of January 8. In a speech at Philadelphia, Mr. Faricy commented on the way allocating authorities have "whittled down" amounts of materials available for freight car production. (*Railway Age*, January 14, page 13.)

Tentative allocations for the second quarter of 1952 amount to only 5,000 cars a month, Mr. Faricy said. This, he added, would barely offset retirements, and would leave virtually no margin for increased capacity to meet defense needs.

The next day, Mr. Wilson testified before a joint congressional committee on defense production. This conversation ensued:

Senator Bricker (Republican of Ohio): "The present allocation will just about take care of the retirement of cars."

Mr. Wilson: "That is what they say. I have heard that for so many years that it is becoming hackneyed."

Senator Bricker: "Mr. Faricy made that statement."

Mr. Wilson: "He made it in a speech again yesterday, and frankly I think it is the bunk."

Mr. Wilson went on to explain. He said when railroads and shippers get turn-around time down — "and quit holding cars as storage vessels" — he will have more sympathy with those who claim a temporary reduction in freight car production will put a cramp on industry.

Senator Bricker commented that the railroads did "a remarkable job" on turn-around time during World War II. Mr. Wilson said, "We want them to get back and do it again now."

"Remember, many, many thousands of businesses in the United States that get freight cars in today in great numbers are not attempting to unload them on Saturday or Sunday and there they lie, and you can increase the use of cars in an emergency a great deal," Mr. Wilson continued.

The mobilization chief said he thought allocations for the railroads were "very generous" throughout 1951. For the second quarter, the proposed 5,000-car allocation is not "too much of a cut," he said.

"I expected they would holler about it. If they were really hurt, I would be worried about it, but I am really not worried about it yet," he said.

The allocations to which both Mr. Faricy and Mr. Wilson referred were officially announced January 11 by the National Production Authority. N.P.A. said second quarter allotments will permit production of approximately 18,000 freight cars, including 2,000 tank cars; 582 locomotive units; and about 363,000 tons of rail.

Late January 9, the day Mr. Wilson testified, Mr. Faricy issued a statement

to the press. He again spoke of the need for more freight cars, and said present car surplus figures are smaller than at any comparable time during the war years.

Even with many shippers working only five days a week, the ton-mile output per railroad-owned freight car in the peak months of 1951 exceeded the peak attained during World War II, Mr. Faricy said.

"No doubt if we were in a full-scale war, more shippers would load and unload on six or seven days a week but that is not the situation now," he continued. He said railroads and shippers are dealing with a "practical situation," and if car shortages in 1952 are to be forestalled, it is necessary to start early.

For example, there are now about 15 per cent fewer gondola cars than there were on V-J Day. Yet steel production and distribution calls for gondolas. If steel production is to increase, there must be more gondola cars, Mr. Faricy explained.

The following day, January 10, Mr. Faricy also released a letter written to Senator Bricker. Referring to Mr. Wilson's "bunk" comment, Mr. Faricy said:

"The record is that the Class I railroads alone, not including other railroads or private car owners, retired an average of 5,884 cars per month from the close of hostilities in World War II to the outbreak of hostilities in Korea, and since the latter date have retired an average of 4,762 per month.

"Over the whole period from September 1945 through November 1951, the latest month for which figures are available, retirements per month averaged 5,629."

A copy of this letter was sent to Mr. Wilson.

On January 12, Mr. Wilson and D.T.A. Administrator Knudson met to discuss the freight car allocations. It was following this meeting that the joint statement was issued which said railroads should get additional allotments of freight car steel in the third quarter.

19 Transport Bills Introduced in Senate

Nineteen bills proposing various amendments to the Interstate Commerce Act and other transport legislation have been introduced in the Senate by Senator Johnson, Democrat of Colorado, who is chairman of the Senate committee on interstate and foreign commerce.

The legislative proposals embodied in the bills resulted from studies of domestic land and water transportation made by the committee pursuant to Senate Resolution 50. Hearings in connection with those studies were conducted by a subcommittee which became known as the Myers Committee because it was headed by former Senator Myers, Democrat of Pennsylvania.

Introduced "by Request"

All but three of the 19 bills were introduced by Senator Johnson "by request," and he is thus not necessarily in favor of all legislative proposals involved. As to the other three—S.2355, S.2363 and S.2365—Mr. Johnson is cosponsor with his committee colleague, Senator Bricker, Republican of Ohio.

The 19 bills are listed below:

S.2348—To amend the procedure of the Interstate Commerce Commission. This bill would amend the Interstate Commerce Act's section 17 so as to broaden the commission's authority to delegate work to individual commissioners and boards of employees.

S.2349—To extend to common carriers by motor vehicle the long-and-short-haul provisions of the Interstate Commerce Act.

S.2350—To amend section 1(15) of the Interstate Commerce Act, so as to authorize, during emergencies involving freight-car shortages, the imposition of special charges to promote efficient car service. This bill would authorize the commission to impose penalty per diem rates.

S.2351—To amend the Interstate Commerce Act by requiring that consideration be given to the adverse effect, upon the adequacy of all other types of transportation providing similar service, in the issuance of certificates of public convenience and necessity authorizing new rail, motor, or water services or extensions of such services.

S.2352—To establish annual license fees for services rendered by the Interstate Commerce Commission. This bill would require payment, by each carrier subject to the Interstate Commerce Act, of an annual fee for its certificate, permit or license. The amount of such fees would be determined by the I.C.C.

S.2353—To extend the records and reports provisions of the Interstate Commerce Act to persons furnishing locomotives.

S.2354—To amend the Interstate Commerce Act by requiring the I.C.C. to consider, in stock-modification plans, the assents of controlled or controlling stockholders. This bill would add to section 20b provisions whereby controlled or controlling stockholders of an involved railroad could be permitted to vote on its voluntary financial reorganization plan.

S.2355—To establish the finality of contracts between the government and common carriers of passengers and freight subject to the Interstate Commerce Act. This would preclude filing by the government of complaints assailing as unreasonable the special non-tariff rates which carriers accord the government under section 22 of the act.

S.2356—To authorize the I.C.C. to make mandatory the installation of certain railroad communication systems. This is another "radio-rules" bill which would broaden the act's so-called signal-inspection provisions by adding radio and other communication devices to facilities that the commission is empowered to require.

S.2357—To amend the Interstate Commerce Act to restrict the application of the agricultural and fish exemption for motor carriers.

S.2358—To amend the Interstate Commerce Act by establishing certain rules for the operation of irregular common carriers by motor vehicle. This bill is designed to define what an irregular-route trucker may and may not do under its certificate.

S.2359—To remove the limitation from the right of the I.C.C. to suspend, change, or revoke, certificates, permits, or licenses issued to motor carriers, after hearing, for willful failure to comply with the Interstate Commerce Act.

S.2360—To amend the Interstate Commerce Act to increase the amounts of securities issued by motor carriers without requiring approval of the I.C.C.

S.2361—To require the supervision, by the I.C.C., of the operations of contract carriers. This bill would allow the commission to change the status of a motor carrier, in the light of new conditions, without going into questions of convenience and necessity. It is also designed to establish conditions under which contract carriers can more effectively compete with private carriers.

S.2362—To amend the Interstate Commerce Act to restrict certain operations of private carriers by motor vehicle, and to restrict the leasing of vehicles. This bill would restrict private carriers from transporting any property for compensation other than that within the scope of their primary business. It would also restrict the leasing of vehicles by common and contract carriers to motor vehicles which are owned by other common and contract carriers.

S.2363—To establish maximum dimensions and weights for motor vehicles subject to the Interstate Commerce Act.

S.2364—To authorize the I.C.C. to revoke or amend, under certain conditions, water carrier certificates and permits.

S.2365—To authorize the Bureau of Public Roads to conduct an investigation to determine the portion and type of public road taxes which should be assessed against various types and weights of motor carriers.

S.2366—To amend section 203(b) of the Interstate Commerce Act. This is a "technical amendment."

Railroads Present Case Against Union Shop

The emergency board investigating the "non-op," union shop case reconvened January 8 in Washington, D. C., to hear the railroad side of the dispute. The unions finished outlining their side of the case before the board adjourned for the holidays.

Donald R. Richberg, counsel for 31 southeastern roads, is challenging the legality of proposed union-shop agreements sought by non-operating employees. (*Railway Age*, December 17, 1951, page 14.)

At the opening session of the new hearings he reminded the board the Supreme Court has held that discriminatory agreements favoring the majority are a breach of trust and invalid.

"It is difficult to imagine a greater abuse of power and breach of trust than for a majority labor organization to make an agreement whereby the employer would force a dissenting minority of employees to join the majority organization or else lose their employment and livelihood," Mr. Richberg declared.

Reliance upon the principle of voluntary unionism "provides a permanent

safeguard against the abuses of absolute power that inevitably develop out of compulsory unionism," he added.

This drive for compulsory unionism of all railway employees has been generated by external pressures upon the A.F. of L. brotherhoods by the C.I.O., Mr. Richberg charged. He said the C.I.O. has sought to invade the railroad industry, and declared that "compulsory unionism" would provide present A.F. of L. groups with a "powerful defense" against this competitor.

Howard Neitzert, representing 57 western carriers, joined Mr. Richberg in challenging the constitutionality of the union-shop amendment to the Railway Labor Act. This amendment was passed by Congress last year.

Railroads cannot enter into union shop agreements without exposing themselves to heavy damages and criminal liability in the event the amendment is held unconstitutional, Mr. Neitzert told the board.

"Pending the determination of these constitutional issues," he said, "every carrier that voluntarily or involuntarily enters into a union shop or checkoff agreement does so at the peril of being held liable for damages for any act done pursuant to such agreement which injures an employee, and at the further peril of being held accountable under the penal provisions of the Railway Labor Act and other state and national laws."

Fred G. Gurley, president of the Atchison, Topeka & Santa Fe, testified before the board on January 14. He said he opposed the union demands because, among other things, it would be "an expression of coercion and force."

"Our great Bill of Rights is designed to protect the freedom of the individual from injustice even by a majority of the people," Mr. Gurley declared.

The Santa Fe president said he had received petitions and letters from many employees of his railroad protesting against the possibility of being compelled to join a union. He said it would be a great injustice to force employees with years of seniority to join a union or lose their jobs.

Mr. Gurley took issue with union claims that compulsory union membership would improve employee morale and lead to greater stability in labor relations on the railroads.

"Are the unions saying," Mr. Gurley asked, "that they have sought higher wages at times when higher wages were not justified by business conditions, because such action was needed to hold members in line?

"On the other hand, if the unions' past demands have been justified, do they mean that in the event of a union shop, they will let the employees down and not press their just demands?"

James W. Oram, chief of personnel of the Pennsylvania, told the board on January 10 that the union shop agreement demanded by the non-ops is "improper" because it fails to provide "necessary safeguards" for both carriers and employees.

THIS NEW TRACK-GAGING MACHINE, developed on the Nickel Plate, is said to make it possible to lay rails to accurate gage with an estimated saving of 60 man-hours per day. Built in March 1951, in the road's shops at Bellevue, Ohio, the machine was used in the summer of 1951 in laying approximately 15 track-miles of 132-lb. rail. Operated by a five-man crew, the machine lines double-shoulder tie plates by means of a runner which fits the rail seats of the plates, enabling boring and anchor-spiking operations to be completed conjunctively. It was designed by C. R. Wright, assistant chief engineer, W. M. S. Dunn, general roadmaster, and M. M. Stansbury, supervisor maintenance of way shop and equipment, all of the Nickel Plate, and is being further developed by the Nordberg Manufacturing Company, Milwaukee, which will manufacture it under the name, Dunright Track Gaging Machine. For the market, the machine will be powered by a gasoline engine, and spike driving will be done with an adaptation of the Nordberg mechanical spike driver, which will form a part of the gaging machine

Mr. Oram charged the agreement would operate "solely" for the benefit of the unions. Certainly it is not for the benefit of the employees who might be required to join the union, nor for the benefit of those who are discharged because they decline either to join or to maintain membership, he declared.

Builders Protest Cuts In Locomotive Allotments

Protests against second-quarter cuts in steel allotted for locomotive production have been lodged with the National Production Authority.

The Locomotive Builders Industry Advisory Committee told NPA that cutbacks in allocations since the fourth quarter of 1951 have been so great as to make it "almost impossible for the industry to continue in business."

Steel allocations for the second quarter will permit construction of about 700 locomotives of all types, N.P.A. told the committee. This includes 582 units for U.S. railroads, 50 industrial locomotives, 24 military locomotives, and 44 units for export.

In the first quarter of this year, the builders were allotted materials for about 800 locomotives. This compares with last year's fourth quarter when the industry was allocated material for 1,033 locomotives.

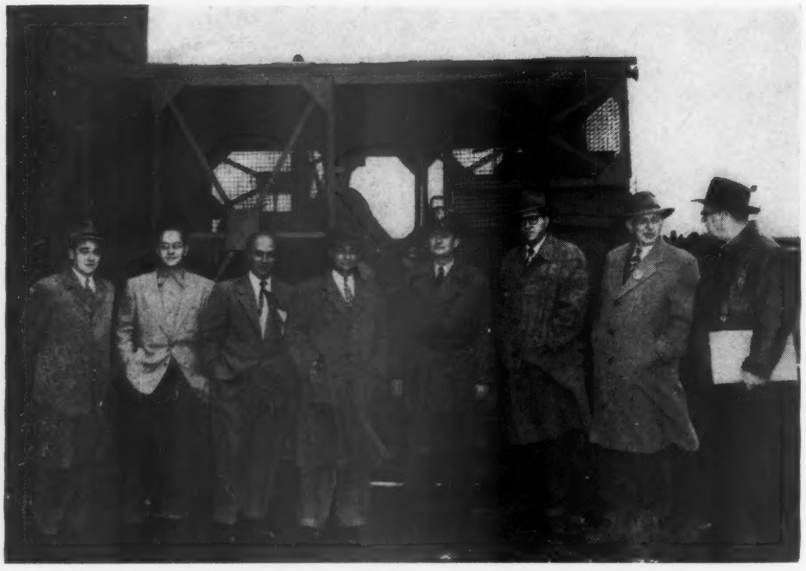
The committee will hold another meeting with government officials to review the second-quarter allotments. N.P.A. said it would arrange such a meeting when the builders have collected information about unemployment prospects, break-even points, and the impact of the cuts on various plants within the industry.

N.P.A. also promised the committee it would hold another meeting with them before making third-quarter allotments.

Mahaffie and Alldredge Reappointed to I.C.C.

President Truman has reappointed Interstate Commerce Commissioners Charles D. Mahaffie and J. Haden Alldredge for new seven-year terms expiring December 31, 1958. The President sent the nominations to the Senate on January 10.

The terms of Commissioners Mahaffie and Alldredge expired on December 31, 1951, but they continue to serve



THE ARMY'S FIRST Pullman-Standard power ballaster was accepted recently at Hammond, Ind., by Lt. Col. C. P. Fortney, Jr., acting chief of the Chicago Procurement Office of the Corps of Engineers, following inspection and testing by both the Signal Corps and the Engineers. A small, mobile electronics laboratory was used by the Signal Corps to test the ballaster's electrical circuits for radio suppression and anti-fungus protection. The corps found that the machine's electrical circuits created no interference with radio signals within permissible clearances and that the circuits were properly protected against humidity. In connection with its ballaster order, the Army has contracted with Pullman-Standard's Power Ballaster Products Division to conduct a training course for 36 key railroad officers of the Corps of Engineers and the Transportation Corps at Fort Belvoir, Va. The program, which includes instruction in use, operation and maintenance of ballaster equipment, will be arranged by W. E. Porter, manager of the commercial engineering section of the Ballaster Products Division. Shown here, from left to right, are: T. Y. Gehr, assistant to the manager of the Ballaster Division; J. R. Brogna and T. J. Kalafarski, Signal Corps engineers; J. A. Curtis, manager of the Ballaster Division; Lt. Col. Fortney; Mr. Porter; J. J. O'Neill, supervisor, Corps of Engineers, and J. F. Donavan, inspector, Corps of Engineers. In the operator's seat is E. F. Turner, assistant manager, commercial engineering section, Ballaster Division

pursuant to provisions of the Interstate Commerce Act which stipulate that a commissioner whose term has expired shall remain in office until his successor qualifies.

Mr. Mahaffie has been a commissioner since 1930, and prior to that time he was director of the commission's Bureau of Finance. Mr. Alldredge has been a commissioner since 1939, prior to which time he had been, in turn, chief of the Alabama Public Service Commission's Transportation Bureau, and transportation economist on the staff of the Tennessee Valley Authority.

Express Agency's Rate Plea Denied by I.C.C.

The Interstate Commerce Commission has denied the Railway Express Agency's petition for additional rate increases which would raise its annual revenue by about $20 million. The commission's adverse action was embodied in January 16 order in the Ex Parte No. 177 proceeding.

That was the case in which the commission made its latest previous determination with respect to express rates, authorizing only part of what R.E.A. proposed. In the petition now denied, the agency sought authority to supplant the increases authorized with others on the basis originally proposed. (*Railway Age* of December 31, 1951, page 15.)

The commission's order referred to recent increases in parcel post rates, and new restrictions on sizes and weights of parcel post packages, which "have materially changed the circumstances and conditions affecting express traffic . . ." The order also said that the time during which such changed conditions and the increase in express rates (which became effective November 15, 1951) have been in effect "is not sufficient to afford a substantial basis . . . upon which to evaluate the effects such rates and changed conditions have had and may have on express traffic."

Freight Car Loadings

Loadings of revenue freight in the week ended January 12 totaled 742,757 cars, the Association of American Railroads announced on January 17. This was an increase of 129,977 cars, or 21.2 per cent, compared with the previous week which included the New Year's Day holiday; a decrease of 40,258 cars, or 5.1 per cent, compared with the corresponding week last year; and an increase of 113,214 cars, or 18.0 per cent, compared with the equivalent 1950 week.

Loadings of revenue freight for the week ended January 5 totaled 612,780 cars; the summaries for that and the preceding week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, January 5, 1952			
District	1952	1951	1950
Eastern	106,294	118,566	95,181
Allegheny	130,103	141,451	105,283
Pocahontas ...	51,875	51,566	33,783
Southern	114,985	118,686	94,053
Northwestern .	64,021	68,567	55,713
Central Western	94,580	106,453	78,149
Southwestern .	50,922	57,138	43,591
Total Western Districts	209,523	232,158	177,453
Total All Roads	612,780	662,427	505,753
Commodities:			
Grain and grain products ...	40,599	47,794	33,163
Livestock	7,292	8,581	8,347
Coal	137,641	141,215	82,788
Coke	16,423	15,094	11,760
Forest Products	33,277	37,803	28,484
Ore	14,791	14,407	10,229
Merchandise l.c.l.	54,893	66,087	61,576
Miscellaneous ..	307,864	331,446	269,406
January 5	612,780	662,427	505,753

For the week ended Saturday, December 29, 1951			
District	1951	1950	1949
Eastern	92,689	111,174	94,819
Allegheny	111,581	125,830	111,400
Pocahontas ...	37,993	45,364	31,297
Southern	81,418	100,931	81,110
Northwestern .	52,496	62,856	53,754
Central Western	83,984	104,244	81,405
Southwestern ..	41,795	52,008	41,855
Total Western Districts	178,275	219,108	177,014
Total All Roads	501,956	602,407	495,640
Commodities:			
Grain and grain products	31,695	43,714	32,455
Livestock	6,520	6,516	6,244
Coal	110,495	129,160	90,171
Coke	15,238	15,641	11,906
Forest Products	21,987	29,069	23,308
Ore	12,191	10,989	10,474
Merchandise l.c.l.	49,736	61,985	62,805
Miscellaneous .	254,094	305,333	258,277
December 29 .	501,956	602,407	495,640
December 22 .	671,622	747,189	623,257
December 15 .	753,194	773,131	639,728
December 8 .	773,520	766,895	668,825
December 1 .	821,776	740,165	693,923
Cumulative total 52 weeks ..	40,497,386	38,902,641	35,911,261

In Canada.—Effective January 1, the reporting of railway revenue carloadings by the principal lines in Canada has been put on the basis of four reports per month for the periods ending the 7th, 14th, 21st and end of month. By this method it is felt that "better comparability will be secured between similar periods of each year and each month rather than by the former use of the weeks ending Saturday. Monthly carloading data will be readily available and can be related to other operating statistics without the necessity of adjusting for the overlapping which occurred in the previous method. The seasonally adjusted weekly index numbers will be valid only until the third period of the current year after which they will be discontinued."

Car loadings for the week ended January 7 totaled 62,176 cars, compared

with 48,788 cars for the previous week and 62,525 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

Totals for Canada	Tot. Rev. Cars Loaded	Tot. Rec. from Connection
Week ended Jan. 7, 1952	62,176	29,123
Week ended Jan. 6, 1951	62,525	30,214

Court Upholds Seatrain's N.Y.-Savannah Rights

A three-judge special court, sitting in the United States District Court at Alexandria, Va., has upheld the Interstate Commerce Commission's order which granted Seatrain Lines temporary authority to establish common carrier service by water between New York and Savannah, Ga. The court dismissed a complaint wherein 41 eastern and southern railroads assailed the order.

Evidence before the commission justified its finding that there was an "immediate and urgent need" for the Seatrain service, the court found. It went on to reject the railroads' contention that "need" means "emergency."

"The commission thought and we agree," the court said, "that the statute does not foreclose consideration of 'the economic needs of commerce and industry' for water carriers just because there are motor, rail or air carriers 'physically capable' of providing transportation service to and from particular points." (*Railway Age*, December 15, 1951, page 15, and November 19, 1951, page 16.)

Edwards Reappointed To Mediation Board

Chairman Leverett Edwards of the National Mediation Board has been reappointed to the board for a new three-year term expiring February 1, 1955. President Truman sent the reappointment to the Senate on January 10.

Mr. Edwards has been a member of N.M.B. since April 1950, when he succeeded Frank P. Douglass, who had resigned. The chairmanship came to Mr. Edwards last July, pursuant to the board's policy of rotating that office annually among its three members.

Examiner Rules Out Film As "Explosives" Evidence

Examiner B. E. Stillwell has ruled, during further hearings in the Riss & Co. "explosives case," that motion pictures will not be admitted as evidence in that proceeding. The pictures were offered by the railroads. The rail carriers are opposing motor carrier applications for permanent authority to transport explosives over the highways. (*Railway Age*, December 31, 1951, pages 48-51.)

Basis for the examiner's ruling was that no facilities are available at the Interstate Commerce Commission for making use of such evidence. He said other parties in the case, including the applicants, would have no easy way of studying the film, and, if it were admitted, the docket would henceforth have to have a projector attached.

During the argument over whether the film would be admitted, the railroads said the pictures were taken in December 1951. They allegedly showed various motor carriers violating I.C.C. safety regulations and state laws.

After Examiner Stillwell's ruling, the roads proceeded to place the evidence in the record by having the photographers take the stand as witnesses.

Most recent group to oppose the motor carrier applications was the National Congress of Parents and Teachers.

Mrs. Warren Stein, a member of the Congress' legislative committee, said the I.C.C. should deny the applications "as not being in the public interest." She said the congress consulted with state highway departments, police officials, and others in reaching this conclusion.

President Names Draper Top U.S. Envoy to Europe

William H. Draper, Jr., chairman of the Long Island Transit Authority and former trustee of the Long Island, has been appointed United States Special Representative in Europe with the rank of Ambassador. His appointment was announced by the White House January 14.

Mr. Draper will be responsible directly to the President in representing this country in Europe. He will exercise general supervision over activities of the Mutual Security Agency, and will be charged with helping North Atlantic Treaty countries build their defensive strength.

It is expected the Special Representative will become senior U.S. civilian representative in Europe, responsible for North Atlantic Treaty as well as Mutual Security program matters, a White House announcement said.

Mr. Draper, a former Under Secretary of the Army, was named trustee of the Long Island in 1950. He resigned that position late in 1951, but has continued with the transit authority to help work out a reorganization plan for the road. His resignation from the latter job, to become Special Representative in Europe, was with the consent of Governor Dewey.

ON THE TRACK OF CHEAPER DIESEL FUEL

The Denver & Rio Grande Western—which pioneered in the use of spectrographic analysis of diesel lubricating oils, not only on quality control but for control of wear rates and mechanical performance of locomotives—is now adding analysis by electronic microscope to its techniques. Such analysis in cooperation with oil producers having shown promise, the railroad has now purchased its own electronic microscope equipment for installation in its laboratory at Denver.

The railroad, according to Ray McBrian, engineer of standards and research, expects to use this microscope in the study of diesel fuels as well as in further research on lubricants. This inquiry, augmented by the research work on ignition improver, pour-point depressants and other similar studies, will be directed to the development, if possible, of a satisfactory diesel fuel based on low cost residual oils of high B.t.u. content.

In cooperation with engine builders and oil refiners the railroad hopes to prove the availability of lower priced fuel. Since a price reduction of only half a cent per gallon would save the railroad $150,000 annually, the potential reward is considered highly attractive in ratio to the relatively slight outlay required.

MORE NEWS ON PAGE 51

Additional general news appears on page 51, followed by regular news departments which begin on the following pages:

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Equipment and Supplies	52
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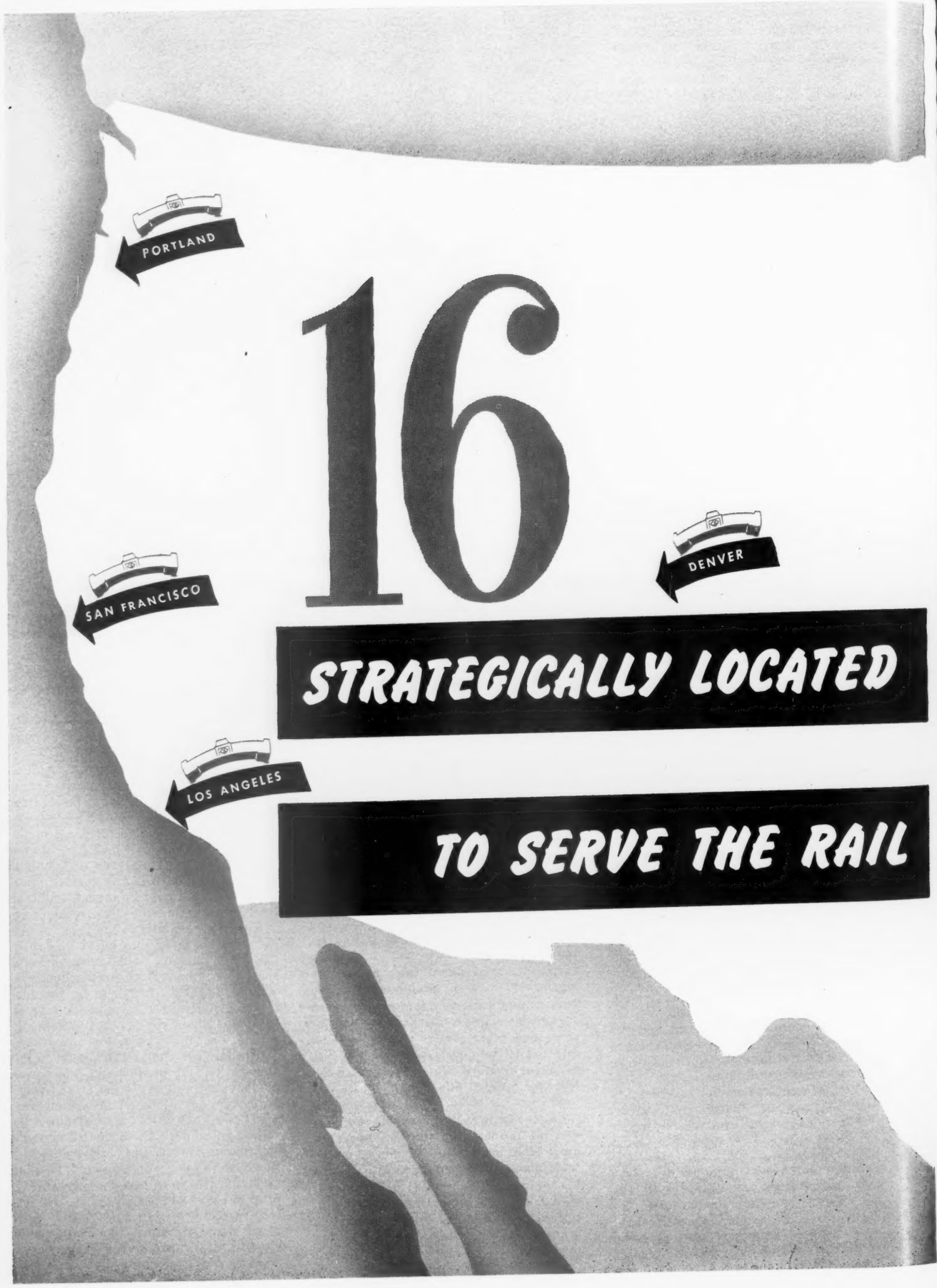
Railway Officers	56

O.R.C. Now Wants Army to Increase Interim Raise

R. O. Hughes, president of the Order of Railway Conductors, has now requested the Army to grant O.R.C. members such further interim wage increases as would make their total interim raise equal to the permanent adjustments granted to members of the two operating unions which have settled their disputes. The two "op" unions which have settled are the Brotherhood of Railroad Trainmen and the Switchmen's Union of North America.

The present interim increase which the Army ordered into effect in February 1951 is being paid to members of the two engine service brotherhoods as well as to O.R.C. members. It amounts to about half of the raise in basic rates that was involved in the settlements which also have escalator provisions.

Mr. Hughes' request for interim increases on the settlement basis was made in a January 10 letter to Assistant Secretary of the Army Bendetsen, who has responsibility for operating the railroads under President Truman's seizure order. It was stated at Mr. Bendetsen's office on January 17 that no action had been taken on the O.R.C. proposal up to that time. Mr. Bendetsen rejected a previous O.R.C. proposal that the Army become a party to arbitration proceedings for settlement of the Conductors' dispute. (*Railway Age*, January 14, page 17.)


PORTLAND
16
DENVER
SAN FRANCISCO
STRATEGICALLY LOCATED
LOS ANGELES
TO SERVE THE RAIL

PLANTS

ROADS

American Brake Shoe Company, through these strategically located foundries, assures a continuing supply of railroad products. Maintaining its tradition of leadership, Brake Shoe has pioneered improvement after improvement for efficient, safe and low-maintenance operation of railway equipment.

These developments have ranged from the earliest Diamond "S" brake shoe to the newest carbon insert brake shoe and the 3 in 1 American Brake Shoe Controller for diesel locomotives. The American Brake Shoe Company, 230 Park Ave., New York 17, N. Y.

AMERICAN Brake Shoe COMPANY

BRAKE SHOE AND CASTINGS DIVISION

6246

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1951

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1951	1950
Akron, Canton & Youngstown	Nov.	171	458,647	.....	476,191	78,248	46,773	31,887	139,038	324,443	68.1	151,748	80,343	45,302	59,914
	11 mos.	171	5,082,253	554	5,273,822	782,593	529,209	373,499	1,546,597	3,551,800	67.3	1,722,022	799,783	606,629	668,819
Atchison, Topeka & Santa Fe System	Nov.	13,096	42,366,670	4,140,257	55,766,119	7,946,616	9,519,720	1,091,961	16,547,327	37,091,527	66.5	18,674,592	10,600,331	7,590,386	15,428,889
	11 mos.	13,096	426,718,883	47,044,056	519,597,703	85,541,103	99,090,215	12,510,028	172,801,757	391,542,775	75.4	128,054,928	61,123,486	64,553,111	76,834,281
Atlanta & St. Andrews Bay	Nov.	82	291,920	2,124	300,941	39,731	21,347	8,250	58,520	140,325	46.6	160,616	81,282	55,589	56,465
	11 mos.	82	3,194,858	23,183	3,295,082	370,636	223,683	89,248	676,988	1,514,695	46.0	1,780,387	930,301	556,890	579,311
Atlanta & West Point	Nov.	93	283,328	45,633	401,468	44,425	53,582	16,118	153,939	295,283	73.6	106,185	55,375	35,237	37,963
	11 mos.	93	3,127,620	524,743	4,143,404	513,854	616,116	171,681	1,787,883	3,363,073	81.2	780,331	412,584	164,838	219,055
Western of Alabama	Nov.	133	274,575	44,161	381,119	51,927	59,806	16,599	131,637	282,956	74.2	98,163	58,732	33,044	70,880
	11 mos.	133	3,299,568	508,990	4,172,907	578,226	684,562	175,374	1,540,809	3,231,659	77.4	941,248	536,786	325,437	394,711
Atlantic & Danville	Nov.	205	175,861	.....	182,046	45,575	18,285	10,377	62,478	147,951	81.3	34,095	4,570	7,764	7,552
	11 mos.	205	1,652,243	.....	1,690,135	366,575	126,208	114,703	598,514	1,335,180	79.0	354,955	95,647	75,371	82,035
Atlantic Coast Line	Nov.	5,453	10,712,755	1,422,566	13,064,071	1,023,407	3,059,813	340,827	4,616,073	9,611,019	73.6	3,453,052	2,025,000	1,329,142	1,274,463
	11 mos.	5,453	115,306,343	18,118,686	143,181,125	26,068,275	30,330,671	3,692,100	53,532,848	120,032,787	83.8	23,148,338	14,500,000	5,981,365	7,713,476
Charleston & Western Carolina	Nov.	343	491,614	4,913	519,087	96,357	119,872	16,173	180,464	426,152	82.1	92,935	50,000	40,993	36,014
	11 mos.	343	5,615,424	84,285	5,885,144	1,473,440	968,631	186,160	1,849,324	4,618,948	78.5	1,266,196	600,000	570,918	447,610
Baltimore & Ohio	Nov.	6,188	33,230,014	2,131,608	37,586,986	5,514,070	8,479,062	869,639	14,876,016	31,144,237	82.9	6,442,749	2,617,087	2,850,690	1,871,997
	11 mos.	6,188	363,857,859	23,560,340	412,099,108	55,736,251	92,415,347	9,268,509	164,253,873	337,793,312	82.0	74,305,796	29,808,045	32,533,727	31,987,246
Staten Island Rapid Transit	Nov.	29	274,937	47,257	329,926	52,001	38,270	1,387	162,150	280,895	85.1	49,031	35,799	—11,004	—50,224
	11 mos.	29	2,684,691	546,008	3,291,916	539,442	409,383	15,891	1,674,468	2,948,566	89.6	343,350	390,345	—240,093	—477,928
Bangor & Aroostook	Nov.	602	972,479	37,037	1,079,391	204,378	180,749	15,162	278,597	738,020	68.4	341,371	190,197	174,952	55,142
	11 mos.	602	9,039,372	403,353	9,884,937	2,125,390	1,947,188	161,976	2,765,762	7,662,491	77.5	2,222,446	1,265,127	1,107,846	1,793,811
Bessemer & Lake Erie	Nov.	212	2,333,646	690	2,347,333	241,265	883,953	17,884	554,134	1,799,960	76.7	547,433	546,531	246,950	181,235
	11 mos.	212	27,352,462	10,792	27,646,209	2,238,623	9,199,794	204,642	5,856,165	18,533,361	66.9	9,142,848	7,529,178	3,915,036	4,656,464
Boston & Maine	Nov.	1,701	5,657,409	841,312	7,195,026	1,238,956	1,036,356	114,638	3,201,657	5,925,273	82.3	1,269,753	592,903	385,246	417,939
	11 mos.	1,701	62,467,466	10,353,966	80,211,874	14,082,251	12,837,866	1,241,654	34,614,170	66,330,520	82.7	13,881,354	6,758,858	3,342,365	5,473,639
Cambria & Indiana	Nov.	35	154,997	.....	155,036	11,735	88,832	77	26,985	133,568	86.2	21,468	70,440	51,805	90,279
	11 mos.	35	1,501,763	.....	1,502,266	155,902	912,849	1,225	281,911	1,436,010	95.6	66,256	726,249	586,616	637,512
Canadian Pacific Lines in Maine	Nov.	234	322,649	39,412	389,643	117,959	79,193	6,917	183,184	399,348	102.5	—9,705	25,286	—84,774	—114,285
	11 mos.	234	4,799,768	482,133	5,578,275	1,200,276	924,373	79,086	2,157,842	4,493,954	80.6	1,084,321	301,672	201,512	—315,184
Canadian Pacific Lines in Vermont	Nov.	90	199,449	13,973	233,865	49,336	28,084	5,751	113,995	204,693	87.5	29,172	10,532	—46,045	—37,916
	11 mos.	90	2,130,924	155,856	2,486,694	581,316	344,966	65,594	1,308,980	2,383,462	95.8	103,232	137,101	—646,699	—875,974
Central of Georgia	Nov.	1,815	2,943,564	208,170	3,690,357	740,659	543,044	119,680	1,430,194	3,019,798	81.8	670,559	179,763	409,385	429,140
	11 mos.	1,815	33,048,009	2,821,569	39,063,913	6,917,308	6,397,948	1,344,056	17,044,126	33,802,668	86.5	5,261,245	2,611,751	1,930,332	1,592,440
Central of New Jersey	Nov.	412	2,981,663	451,561	3,687,812	585,290	601,661	56,137	1,792,266	3,205,538	86.9	482,274	396,638	—296,989	—376,785
	11 mos.	411	32,056,062	5,285,254	40,067,279	5,659,465	6,810,530	620,478	20,382,435	35,282,686	88.1	4,784,593	4,407,248	—3,541,010	—2,698,756
Central of Pennsylvania	Nov.	208	1,716,732	3,820	1,761,867	204,899	417,229	24,003	507,710	1,194,424	67.8	567,443	90,994	739,017	729,616
	11 mos.	210	17,477,599	66,946	17,984,128	1,961,890	4,281,525	274,268	5,615,102	12,581,754	70.0	5,402,374	1,012,419	7,493,581	8,787,752
Central Vermont	Nov.	422	845,000	51,000	962,000	68,036	153,636	14,283	400,200	673,032	70.0	288,968	41,576	191,095	225,552
	11 mos.	422	9,213,000	623,000	10,561,000	1,870,148	1,704,293	167,342	4,385,083	8,565,013	81.1	1,995,987	493,176	836,033	768,944
Chesapeake & Ohio	Nov.	5,117	30,044,811	740,422	32,982,248	3,871,232	6,706,305	560,004	10,212,654	22,593,799	68.5	10,388,449	6,524,973	4,193,821	3,780,403
	11 mos.	5,116	313,833,375	8,353,951	338,220,319	44,094,645	67,834,859	6,168,837	110,721,154	241,841,937	71.5	96,378,382	56,622,949	43,395,022	45,156,678
Chicago & Eastern Illinois	Nov.	886	2,265,653	280,522	2,956,951	421,014	600,605	113,108	1,054,664	2,354,094	79.6	602,857	202,300	329,380	533,232
	11 mos.	886	24,545,709	3,120,704	30,807,156	4,340,894	4,946,785	1,226,536	11,530,148	23,739,735	77.1	7,067,421	2,847,300	3,051,731	3,688,173
Chicago & Illinois Midland	Nov.	130	853,382	201	872,506	110,928	136,411	26,923	225,134	540,038	61.9	332,468	166,310	125,430	282,598
	11 mos.	130	8,451,502	2,210	8,655,788	1,186,038	1,722,805	297,936	2,439,785	6,082,763	70.3	2,573,025	1,310,743	880,410	2,385,581
Chicago & North Western	Nov.	7,913	12,874,275	1,799,654	17,665,197	2,562,389	2,951,602	372,978	7,690,995	14,424,036	81.7	3,241,461	1,717,188	1,122,374	2,049,245
	11 mos.	7,911	146,715,321	20,275,322	186,783,326	29,838,093	31,379,361	3,796,399	86,798,031	163,958,576	87.8	22,824,750	12,409,705	5,890,024	7,926,377
Chicago, Burlington & Quincy	Nov.	8,825	19,163,791	1,510,833	23,078,188	3,467,934	3,396,191	460,087	7,689,892	15,789,895	68.4	7,288,293	3,926,561	2,894,987	3,699,132
	11 mos.	8,823	202,593,333	17,285,351	241,942,551	38,682,954	35,968,381	4,960,043	85,471,827	173,532,618	71.7	68,409,933	36,412,314	26,445,984	30,261,395
Chicago Great Western	Nov.	1,474	2,583,927	11,170	2,953,717	561,948	400,023	102,685	934,869	2,090,665	70.8	863,052	292,061	310,645	313,198
	11 mos.	1,474	29,049,142	280,802	31,272,807	5,521,325	4,610,914	1,112,786	10,400,507	22,560,818	72.1	8,711,989	2,715,851	2,803,911	3,299,591
Chicago, Indianapolis & Louisville	Nov.	541	1,629,876	86,050	1,848,691	275,533	255,046	88,058	653,402	1,363,395	73.7	485,296	181,170	169,355	162,564
	11 mos.	541	17,530,982	866,805	19,605,902	3,342,443	3,040,331	942,209	7,001,681	15,386,719	78.4	4,219,183	1,580,286	1,449,634	1,893,494
Chicago, Milwaukee, St. Paul & Pacific	Nov.	10,671	18,783,079	1,544,823	22,721,264	2,489,938	4,268,414	487,754	9,066,477	17,356,391	76.4	5,364,873	2,884,000	2,073,513	2,644,330
	11 mos.	10,671	201,147,756	17,775,261	243,079,125	34,376,877	47,792,423	5,106,782	103,436,443	202,092,886	83.1	40,986,239	22,203,000	12,814,349	18,345,722
Chicago, Rock Island & Pacific	Nov.	7,917	13,984,836	1,585,395	17,636,422	1,959,592	2,463,032	465,302	6,325,087	11,974,795	67.9	5,661,627	2,633,629	2,236,851	2,406,803
	11 mos.	7,922	147,006,930	18,348,466	181,098,309	26,888,115	27,989,093	5,114,196	70,439,104	139,200,411	76.9	41,897,898	18,144,413	14,534,830	17,315,581
Chicago, St. Paul, Minn., & Omaha	Nov.	1,617	2,405,744	181,733	3,018,833	462,538	408,362	66,396	1,466,281	2,530,880	83.8	487,953	Cr. 31,080	351,932	549,549
	11 mos.	1,617	26,139,880	2,118,362	30,846,762	5,011,573	4,641,305	699,101	16,307,010	28,082,701	91.0	2,764,061	1,817,865	—1,036,676	1,620,374
Clinchfield	Nov.	317	1,995,624	1,059	2,005,540	233,454	285,462	36,823	422,983	1,012,382	50.5	993,158	257,058	928,040	695,367
	11 mos.	317	21,102,828	14,431	21,526,643	2,907,890	3,491,953	426,171	4,825,318	12,020,127	55.8	9,506,516	2,299,764	8,929,642	7,531,213

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1951

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
			Freight	Passenger	Total (inc. misc.)	Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total				1951	1950
Colorado & Southern	Nov.	736	1,319,635	71,575	1,530,822	122,372	159,187	27,544	504,860	867,188	56.7	663,634	340,451	257,805	129,864
	11 mos.	738	12,627,328	969,986	14,714,683	1,831,247	2,107,834	300,060	5,517,737	10,359,918	70.4	4,354,765	2,817,131	1,144,937	1,314,261
Ft. Worth & Denver City	Nov.	804	1,841,324	132,494	2,156,998	262,750	218,622	54,065	720,332	1,349,955	62.6	807,043	326,260	336,977	432,867
	11 mos.	804	15,877,635	1,750,372	19,181,254	2,622,163	2,585,274	590,694	7,242,834	14,082,800	73.4	5,098,454	1,845,741	1,902,338	2,678,036
Colorado & Wyoming	Nov.	41	177,241	.....	279,385	28,167	32,297	1,021	116,935	189,786	67.9	89,599	59,639	25,712	55,988
	11 mos.	41	1,700,807	.....	3,020,092	539,954	315,335	12,664	1,301,560	2,291,587	75.8	728,505	442,473	260,517	336,450
Columbus & Greenville	Nov.	168	181,008	Dr. 7	190,907	60,678	22,798	3,850	56,905	158,041	82.8	32,866	27,338	9,552	22,106
	11 mos.	168	1,799,074	1,100	1,881,686	494,281	319,593	40,565	579,912	1,623,903	86.3	257,783	226,023	78,050	30,254
Delaware & Hudson	Nov.	793	4,458,370	143,635	4,829,326	537,876	1,072,381	74,902	1,837,467	3,730,225	77.2	1,099,101	668,588	504,220	764,604
	11 mos.	793	50,827,986	1,758,889	54,212,617	7,283,567	11,675,245	863,980	20,414,023	42,398,494	78.2	11,814,123	7,036,271	5,240,691	5,588,067
Delaware, Lackawanna & Western	Nov.	965	5,988,967	797,942	7,437,350	826,489	1,451,716	202,982	3,291,293	6,039,646	81.2	1,397,704	688,755	723,463	756,665
	11 mos.	965	65,727,163	8,802,172	81,283,484	9,100,840	15,647,754	1,907,564	36,755,555	66,263,218	81.5	15,020,266	8,522,808	6,527,595	7,434,039
Denver & Rio Grande Western	Nov.	2,334	6,879,944	256,786	7,422,123	542,060	1,084,534	166,137	2,250,084	4,306,035	58.0	3,116,088	1,739,444	1,349,960	1,315,273
	11 mos.	2,339	65,044,766	3,311,896	70,904,036	8,695,337	11,863,338	1,801,760	22,657,523	48,043,472	67.8	22,860,564	12,232,934	10,584,735	8,665,661
Detroit & Mackinac	Nov.	232	239,598	Dr. 19	250,550	75,000	21,092	5,045	42,513	154,931	61.8	95,619	73,775	12,211	65,456
	11 mos.	232	2,333,990	707	2,416,632	585,000	231,904	41,140	424,337	1,388,376	57.5	1,028,256	632,539	317,321	538,877
Detroit & Toledo Shore Line	Nov.	50	623,716	.....	626,478	89,986	50,817	13,557	213,502	381,007	60.8	245,471	83,933	71,847	53,869
	11 mos.	50	6,891,551	.....	6,928,781	811,381	638,957	152,922	2,281,092	4,022,223	58.1	2,906,558	1,131,020	774,416	1,013,156
Detroit, Toledo & Ironton	Nov.	464	1,337,071	387	1,412,037	194,718	428,739	28,581	398,293	1,097,310	77.7	314,727	208,769	102,753	296,777
	11 mos.	464	16,327,464	4,674	17,101,715	2,300,501	2,962,389	304,311	4,669,246	10,748,118	62.8	6,353,597	3,369,242	2,641,268	3,361,395
Duluth, Missabe & Iron Range	Nov.	567	3,257,800	1,191	3,860,668	574,795	707,650	9,911	2,803,409	4,221,082	109.3	—360,414	Cr. 196,251	—225,323	220,168
	11 mos.	566	47,838,979	17,756	55,326,604	6,716,652	7,818,114	96,213	19,296,291	35,129,811	63.5	20,196,793	14,834,665	5,204,797	8,733,734
Duluth, South Shore & Atlantic	Nov.	539	595,472	6,478	682,539	71,719	139,160	19,917	236,333	485,619	71.1	196,920	26,942	136,632	147,810
	11 mos.	539	7,002,309	81,906	7,476,726	1,328,900	1,403,033	235,183	2,905,344	6,070,873	81.2	1,405,853	309,618	684,536	906,044
Duluth, Winnipeg & Pacific	Nov.	175	456,000	900	463,100	37,338	65,813	5,141	202,992	317,657	68.6	145,443	35,244	69,500	41,703
	11 mos.	175	4,618,000	11,700	4,694,800	807,685	787,455	49,865	2,035,114	3,755,020	80.0	939,780	363,906	54,451	171,909
Elgin, Joliet & Eastern	Nov.	238	3,717,724	.....	4,587,910	374,393	667,461	29,254	1,627,861	2,848,885	62.1	1,739,025	970,326	303,602	660,392
	11 mos.	238	40,423,764	61	50,441,212	4,697,648	7,272,512	341,140	17,878,203	31,867,642	63.2	18,573,570	9,483,186	3,594,566	8,362,047
Erie	Nov.	2,243	13,464,247	584,706	15,430,340	1,624,955	2,319,398	330,850	6,002,102	10,997,876	71.3	4,432,464	1,840,082	2,097,506	1,827,457
	11 mos.	2,244	145,308,009	6,646,250	164,122,449	21,550,422	26,191,186	3,743,755	66,969,468	125,942,705	76.7	38,179,744	17,001,101	15,973,040	17,543,983
Florida East Coast	Nov.	571	1,766,002	423,604	2,539,785	398,808	429,215	66,747	887,184	1,933,875	76.1	605,910	166,627	317,577	2,178
	11 mos.	571	18,559,580	5,849,030	26,894,474	3,846,674	4,807,583	756,401	10,425,363	21,684,300	80.6	5,210,174	1,735,889	1,963,808	1,152,773
Georgia Railroad	Nov.	323	667,693	29,875	797,066	122,949	109,436	31,874	316,867	615,417	77.2	181,649	37,445	170,804	236,936
	11 mos.	323	7,647,924	608,770	8,862,611	1,311,296	1,329,353	342,217	3,511,264	6,888,233	77.7	1,974,378	416,856	1,676,213	1,724,035
Georgia & Florida	Nov.	359	240,396	8	247,013	63,098	37,088	17,107	80,202	211,278	85.5	35,735	19,269	518	11,417
	11 mos.	359	3,062,600	202	3,127,484	866,379	368,374	205,631	964,420	2,554,700	81.7	572,784	187,126	157,744	—64,556
Grand Trunk Western	Nov.	952	3,846,000	212,000	4,393,000	558,986	750,053	72,562	2,103,366	3,661,114	83.3	731,886	183,321	230,300	1,040,108
	11 mos.	960	45,903,000	2,197,000	52,031,000	8,074,170	9,038,487	779,769	23,059,481	42,784,607	82.2	9,246,393	2,963,902	2,579,345	7,782,435
Canadian Natl. Lines in New Engl.	Nov.	172	175,000	5,000	223,000	83,837	66,264	2,798	117,836	293,045	131.4	—70,045	22,746	—135,339	—15,661
	11 mos.	172	2,044,000	88,100	2,537,000	706,469	559,039	29,849	1,466,934	2,961,103	116.7	—424,103	250,206	—1,199,206	—1,061,223
Great Northern	Nov.	8,316	18,411,007	927,901	20,877,213	2,949,124	3,460,725	386,183	7,444,520	15,018,871	71.9	5,858,342	2,939,389	2,520,968	4,851,908
	11 mos.	8,316	200,739,599	12,404,030	230,068,675	39,584,681	37,771,006	4,108,630	79,671,707	169,735,469	73.8	60,333,206	34,575,327	22,359,231	23,409,030
Green Bay & Western	Nov.	224	321,539	.....	327,243	—13,638	48,029	18,886	85,610	152,181	46.5	175,062	91,689	80,716	62,255
	11 mos.	224	3,672,120	.....	3,739,006	966,981	474,236	226,618	937,481	2,770,020	74.1	968,986	482,437	418,546	518,583
Gulf, Mobile & Ohio	Nov.	2,898	6,935,678	430,928	7,943,999	1,145,671	1,306,243	265,893	2,282,108	5,340,407	67.2	2,603,592	1,190,468	961,659	1,868,409
	11 mos.	2,898	70,091,563	4,764,402	80,295,446	13,137,262	15,393,530	2,805,566	24,055,261	59,131,239	73.6	21,164,207	9,714,303	7,648,951	8,292,094
Illinois Terminal	Nov.	462	819,921	83,385	1,016,863	150,076	154,900	37,704	421,732	818,062	80.45	198,801	88,040	75,927	88,430
	11 mos.	462	9,393,255	890,721	11,624,190	1,712,261	1,695,232	417,443	4,683,011	9,056,366	77.91	2,567,824	1,288,107	941,545	1,182,639
Illinois Central	Nov.	6,539	21,676,671	1,864,614	25,078,241	3,863,405	4,258,671	489,949	9,421,207	19,039,811	73.9	6,740,430	3,950,461	2,422,327	3,674,099
	11 mos.	6,539	222,387,672	21,088,978	267,332,891	43,641,518	46,898,058	5,482,061	99,056,590	206,332,620	77.2	61,000,271	30,857,850	25,325,608	28,084,967
Kansas City Southern	Nov.	891	3,498,777	125,951	3,967,458	484,954	432,304	85,834	1,085,591	2,200,349	55.5	1,767,109	985,000	592,575	733,092
	11 mos.	891	35,740,603	1,529,581	40,476,431	4,221,258	4,904,397	893,552	12,038,417	23,299,243	57.6	17,177,188	8,065,000	6,754,584	7,526,899
Kansas, Oklahoma & Gulf	Nov.	327	587,939	493	592,830	80,398	37,001	24,073	144,794	310,628	52.4	282,202	133,843	111,929	124,591
	11 mos.	327	6,033,998	6,548	6,092,975	823,776	378,213	229,386	1,400,273	3,073,282	50.4	3,019,693	1,414,613	1,223,954	1,036,621
Lake Superior & Ishpeming	Nov.	156	313,850	55	373,062	51,559	57,459	1,859	150,144	271,405	72.8	101,657	Cr. 11,140	121,616	31,230
	11 mos.	156	3,652,306	398	4,395,732	632,506	550,317	21,768	1,223,261	2,567,520	58.4	1,828,212	1,115,791	846,929	699,209
Lehigh & Hudson River	Nov.	96	281,262	.....	282,167	43,918	27,687	11,476	83,451	177,076	62.8	105,091	17,694	70,467	21,057
	11 mos.	96	3,004,801	.....	3,031,091	465,579	285,725	121,038	905,825	1,888,157	62.3	1,142,934	463,350	500,017	286,682
Lehigh & New England	Nov.	184	775,775	.....	782,919	68,055	112,176	13,917	201,529	428,544	54.7	354,375	202,042	160,721	214,958
	11 mos.	188	8,204,968	.....	8,286,115	1,043,045	1,245,387	129,363	2,117,380	4,904,536	59.2	3,381,579	1,995,735	1,700,334	2,086,429
Lehigh Valley	Nov.	1,223	6,215,958	370,540	6,945,194	781,353	1,287,208	137,014	2,473,404	4,931,562	71.0	2,013,632	924,848	1,024,997	1,008,496
	11 mos.	1,225	65,502,459	3,585,794	72,202,722	9,483,418	14,852,931	1,515,855	28,145,656	56,676,520	78.5	15,526,202	6,919,947	7,642,033	7,745,369
Long Island	Nov.	365	1,330,540	2,861,904	4,698,763	612,021	772,043	9,807	2,328,238	3,892,341	82.8	806,422	477,069	59,828	—351,640
	11 mos.	365	14,047,071	32,615,252	49,742,093	6,580,523	9,130,386	146,905	25,896,516	43,524,308	87.5	6,217,785	5,004,006	—1,547,025	—904,443

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1951

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1951	1950
Louisiana & Arkansas	Nov.	756	2,080,300	52,500	2,210,300	232,173	312,763	70,588	549,034	1,234,624	55.9	975,676	404,420	431,568	352,481
	11 mos.	756	20,536,002	656,103	21,997,559	3,899,820	2,748,623	732,944	6,246,576	14,419,781	65.6	7,577,778	3,401,969	2,806,207	3,582,679
Louisville & Nashville	Nov.	4,765	17,459,594	1,110,674	20,151,747	2,536,688	4,320,420	324,253	6,871,149	14,693,506	72.9	5,458,241	3,665,779	2,191,917	3,355,135
	11 mos.	4,772	180,089,544	13,222,648	205,871,513	28,991,295	43,835,902	3,582,554	76,330,246	159,880,827	77.7	45,990,686	32,059,536	20,414,407	24,106,108
Maine Central	Nov.	981	1,878,636	105,851	2,109,864	397,392	403,016	21,425	781,182	1,678,695	79.6	431,169	243,157	169,692	145,670
	11 mos.	981	20,993,597	1,423,359	23,907,458	4,599,983	4,181,689	219,278	8,273,248	18,088,846	75.7	5,818,612	3,143,831	2,333,726	1,910,063
Midland Valley	Nov.	334	182,344	4	185,406	48,272	27,116	4,132	62,944	149,639	80.7	35,767	8,740	17,059	29,296
	11 mos.	334	1,892,866	69	1,925,820	531,685	200,076	46,804	654,881	1,511,296	78.5	414,524	188,838	111,878	199,846
Minneapolis & St. Louis	Nov.	1,406	1,855,952	3,938	1,945,085	215,011	261,674	116,127	599,417	1,292,061	66.4	653,024	364,832	244,078	388,346
	11 mos.	1,406	19,340,128	116,803	20,177,716	3,530,028	2,906,384	1,277,319	6,459,827	15,374,101	76.2	4,803,615	2,548,890	1,492,902	2,318,303
Minn., St. Paul & Sault Ste. Marie	Nov.	3,224	3,108,495	65,790	3,735,486	789,950	609,505	67,387	1,394,864	2,983,173	79.9	752,313	262,021	401,160	648,429
	11 mos.	3,224	35,451,011	932,933	38,675,866	7,851,369	7,035,381	812,632	15,086,711	32,131,118	83.1	6,544,748	3,209,448	2,837,522	2,562,994
Mississippi Central	Nov.	148	228,675	Dr. 255	232,090	51,787	27,972	13,481	57,773	160,797	69.3	71,293	35,560	24,373	35,586
	11 mos.	148	2,364,476	Dr. 292	2,410,102	485,225	314,673	143,381	635,050	1,681,453	69.8	728,649	358,106	252,912	241,246
Missouri-Illinois	Nov.	172	400,778	245	404,946	87,604	71,914	7,733	122,744	298,995	73.8	105,951	56,070	54,878	101,741
	11 mos.	172	4,805,793	2,220	4,874,202	756,640	721,921	87,846	1,313,457	2,973,854	61.0	1,900,348	1,208,964	765,953	806,453
Missouri-Kansas-Texas Lines	Nov.	3,242	6,225,817	376,994	7,212,708	960,595	908,514	244,017	2,469,852	4,908,498	68.1	2,304,210	1,105,014	885,256	943,842
	11 mos.	3,242	60,875,355	4,612,843	71,408,829	10,719,164	10,322,671	2,685,962	27,220,560	54,458,903	76.3	16,949,926	7,716,463	6,082,523	7,992,554
Missouri Pacific	Nov.	6,950	17,956,982	957,266	20,965,105	3,572,931	3,872,442	454,585	7,773,260	16,306,574	77.8	4,658,531	1,522,764	2,453,459	2,790,499
	11 mos.	6,956	186,350,211	11,223,443	217,081,225	38,498,268	42,097,098	4,882,468	82,995,902	175,442,009	80.8	41,639,216	14,750,117	21,352,289	25,241,956
International-Great Northern	Nov.	1,104	2,676,831	186,964	3,168,278	633,368	555,922	56,303	1,240,405	2,618,952	82.7	549,326	119,262	302,206	246,100
	11 mos.	1,104	29,605,588	2,399,720	34,955,648	7,112,685	5,965,764	605,686	13,784,140	28,943,427	82.8	6,012,221	1,516,131	2,866,144	2,705,796
Gulf Coast Lines	Nov.	1,727	3,412,786	78,007	3,726,654	725,515	511,798	86,250	1,237,546	2,702,053	72.5	1,024,601	466,742	336,247	422,686
	11 mos.	1,727	36,740,563	1,150,530	40,120,083	8,030,676	6,003,188	935,666	13,404,753	29,976,555	74.7	10,143,528	3,698,036	4,079,161	4,827,101
Monongahela	Nov.	178	809,099	.....	812,253	84,827	86,861	1,194	319,142	499,313	61.5	312,940	72,796	78,109	—27,826
	11 mos.	178	8,255,806	32	8,297,676	997,913	970,081	13,151	2,931,243	4,995,093	60.2	3,302,583	739,581	928,900	264,985
Montour	Nov.	51	276,157	.....	276,490	17,636	99,920	928	100,694	229,135	82.9	47,355	71,072	55,071	59,775
	11 mos.	51	2,493,733	.....	2,499,555	311,758	989,229	9,947	997,677	2,403,886	96.2	95,669	464,820	342,015	555,870
Nashville, Chatt. & St. Louis	Nov.	1,032	2,948,480	153,749	3,500,400	529,705	486,507	113,311	1,141,666	2,389,723	68.3	1,110,677	672,582	429,121	552,284
	11 mos.	1,047	30,152,533	1,871,691	35,089,720	6,256,310	5,200,475	1,233,840	12,381,646	26,367,327	75.1	8,722,393	5,483,243	3,388,008	4,409,901
New York Central	Nov.	10,725	50,110,814	10,687,359	71,905,802	8,404,003	14,299,058	1,054,682	30,966,799	57,972,693	80.6	13,933,109	5,667,749	6,599,476	2,125,784
	11 mos.	10,727	541,509,621	110,131,582	738,948,904	99,703,894	151,360,881	11,531,194	338,059,561	634,990,021	85.9	103,958,883	55,948,196	31,156,239	32,664,366
Pittsburgh & Lake Erie	Nov.	221	3,588,208	89,208	3,842,484	425,941	1,568,586	68,836	1,368,502	3,651,100	95.0	191,384	593,831	338,391	394,717
	11 mos.	221	42,145,381	891,050	45,108,118	5,547,839	14,807,993	794,218	15,844,541	39,309,008	87.1	5,799,110	7,512,159	6,295,429	6,821,600
New York, Chicago & St. Louis	Nov.	2,188	13,172,566	179,403	13,952,500	1,611,272	2,322,747	309,420	4,811,846	9,456,069	67.8	4,496,431	2,132,634	2,021,383	2,395,852
	11 mos.	2,192	140,554,145	1,907,441	147,552,889	16,782,366	24,691,691	3,357,135	51,626,257	101,284,480	68.6	46,268,409	21,739,796	20,500,038	23,008,642
New York, New Haven & Hartford	Nov.	1,793	7,871,318	4,200,179	13,659,550	1,802,346	2,131,164	193,930	5,494,312	10,405,001	76.2	3,254,549	1,146,000	1,107,176	1,009,471
	11 mos.	1,794	84,785,901	44,317,064	143,436,945	21,810,056	23,451,892	2,070,588	61,693,095	116,432,234	81.2	27,004,711	10,615,333	6,392,408	9,672,970
New York Connecting	Nov.	21	219,190	.....	233,908	84,974	17,614	.....	56,397	161,732	69.1	72,176	81,234	13,915	78,361
	11 mos.	21	2,796,939	.....	2,934,960	1,226,521	201,807	.....	844,271	2,303,404	78.5	631,556	827,591	—83,529	602,461
New York, Ontario & Western	Nov.	542	559,587	121	579,754	113,770	83,849	24,898	262,519	515,540	88.9	64,214	36,128	—34,402	—29,470
	11 mos.	542	6,390,898	72,013	6,717,034	1,289,445	951,165	287,328	3,118,271	5,983,090	89.1	733,944	410,495	—403,353	—490,189
New York, Susquehanna & Western	Nov.	120	387,435	38,497	449,392	50,713	62,948	9,193	186,553	336,744	74.9	112,648	34,060	51,098	43,481
	11 mos.	120	4,346,633	417,098	4,981,929	602,995	610,756	90,472	2,116,667	3,693,963	74.1	1,287,966	366,523	521,674	489,615
Norfolk & Western	Nov.	2,135	16,712,984	574,777	18,112,961	2,290,464	3,038,309	293,046	5,419,724	11,643,231	64.3	6,469,730	4,657,975	2,647,758	2,364,056
	11 mos.	2,135	174,782,035	5,443,193	188,439,746	24,799,753	36,474,818	3,130,991	55,753,088	126,713,964	67.2	61,725,782	44,380,704	27,501,402	25,664,589
Norfolk Southern	Nov.	643	1,020,373	.....	1,102,258	207,088	126,173	48,299	319,656	767,665	69.6	334,593	169,357	104,026	149,672
	11 mos.	643	10,267,263	1,371	10,595,289	1,995,910	1,299,827	507,993	3,418,641	7,993,029	75.4	2,602,260	1,289,788	772,722	726,898
Northern Pacific	Nov.	6,887	13,478,694	528,308	15,065,464	2,016,610	2,674,566	292,166	6,071,424	11,701,985	77.7	3,363,479	1,969,401	1,827,501	3,636,946
	11 mos.	6,887	140,212,180	6,841,027	157,770,380	24,986,091	30,506,757	3,088,980	60,293,465	126,145,414	80.0	31,624,966	21,323,732	14,130,425	19,825,371
Northwestern Pacific	Nov.	331	944,369	3,125	1,028,934	265,514	104,476	4,683	416,590	805,636	78.3	223,298	91,662	25,864	29,964
	11 mos.	331	10,388,565	46,342	10,780,951	2,571,318	1,086,348	53,545	4,603,482	8,492,562	78.8	2,288,389	920,315	370,440	599,532
Oklahoma City-Ada-Atoka	Nov.	132	109,038	.....	109,826	22,131	1,871	1,491	20,656	50,173	45.7	59,653	21,913	24,667	—6,153
	11 mos.	132	1,081,432	Dr. 66	1,091,136	247,411	49,672	18,335	235,195	592,941	54.3	498,195	202,588	169,135	28,597
Pennsylvania	Nov.	10,127	66,071,371	13,202,256	87,622,815	10,095,114	20,832,367	1,276,803	38,742,816	74,186,688	84.7	13,436,127	5,919,619	5,679,577	3,952,948
	11 mos.	10,127	724,372,222	140,428,427	951,362,793	118,257,603	232,844,378	14,188,096	414,528,081	814,255,594	85.6	137,107,199	63,771,162	54,051,903	52,346,342

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1951

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1951	1950
Pennsylvania-Reading Seashore Lines	Nov.	364	657,207	109,254	801,614	205,218	91,651	9,591	548,142	886,414	110.6	—84,800	100,143	—306,558	—393,821
	11 mos.	365	7,018,452	2,319,807	9,775,773	2,371,058	1,049,032	119,458	6,544,480	10,487,867	107.3	—712,094	1,110,133	—3,316,879	—3,996,512
Pittsburg & Shawmut	Nov.	97	188,531	.....	189,318	31,288	63,361	3,488	52,561	159,738	84.4	29,580	Cr. 20,713	71,519	40,282
	11 mos.	97	2,179,637	.....	2,191,094	377,580	642,298	38,991	613,787	1,758,432	80.3	432,662	86,634	421,075	386,383
Pittsburgh & West Virginia	Nov.	132	697,993	.....	707,872	132,881	195,019	48,581	193,641	595,540	84.1	112,332	74,177	84,240	105,670
	11 mos.	132	7,923,494	.....	8,035,326	1,559,378	1,998,637	532,632	2,195,805	6,573,250	81.8	1,462,076	927,875	1,116,237	1,274,410
Reading	Nov.	1,313	10,174,994	578,816	11,372,547	1,582,193	2,419,036	155,970	4,384,343	8,883,522	78.1	2,489,025	1,394,462	1,125,081	1,260,430
	11 mos.	1,313	105,378,159	6,327,631	118,534,625	18,334,847	26,198,333	1,565,274	47,018,686	96,850,244	81.7	21,684,381	12,764,324	10,221,703	12,002,160
Richmond, Fredericksburg & Potomac	Nov.	118	1,451,407	477,449	2,179,582	360,988	286,576	19,435	682,476	1,478,225	67.8	701,357	405,552	208,950	312,215
	11 mos.	118	15,932,335	6,142,526	24,643,915	3,326,918	3,092,313	226,744	7,956,624	16,076,837	65.2	8,567,078	4,777,393	2,688,120	2,977,798
Rutland	Nov.	397	370,411	16,890	463,626	83,695	73,800	15,827	237,379	437,427	94.3	26,199	31,964	—23,714	—53,478
	11 mos.	402	4,316,126	290,205	5,413,162	910,846	906,396	170,811	2,755,717	4,997,458	92.3	415,704	359,095	—145,851	—171,755
Sacramento Northern	Nov.	271	301,605	.....	324,014	47,138	18,236	2,221	90,492	167,020	51.5	156,994	12,624	117,639	6,409
	11 mos.	271	3,129,749	205	3,228,163	582,677	285,206	23,988	1,033,392	2,017,084	62.5	1,211,079	157,736	795,046	458,970
St. Louis-San Francisco	Nov.	4,601	9,022,203	562,663	10,387,716	1,720,780	1,752,575	290,715	3,821,372	7,986,515	76.9	2,401,201	1,430,028	1,019,155	1,381,271
	11 mos.	4,610	97,826,987	6,811,753	112,742,522	18,880,579	19,147,688	3,114,949	42,462,660	88,719,862	78.7	24,022,660	13,785,827	10,640,714	12,821,923
St. Louis, San Francisco & Texas	Nov.	159	381,442	7,956	421,168	48,097	33,406	20,409	135,616	248,977	59.1	172,191	90,930	38,908	81,751
	11 mos.	159	4,025,976	121,024	4,445,333	556,759	399,190	205,873	1,675,583	2,975,891	66.9	1,469,442	601,238	330,306	332,524
St. Louis Southwestern Lines	Nov.	1,569	5,398,072	30,753	5,854,504	716,950	532,963	155,735	1,703,913	3,293,465	56.3	2,561,039	1,627,005	696,567	681,355
	11 mos.	1,569	60,658,671	580,559	63,762,478	8,100,185	7,401,093	1,686,085	19,875,059	39,135,504	61.4	24,626,974	13,665,280	8,087,693	10,619,582
Seaboard Air Line	Nov.	4,146	9,830,248	952,888	11,648,672	1,802,960	2,195,047	357,461	4,070,931	8,933,662	76.7	2,715,010	1,250,510	1,332,298	1,407,443
	11 mos.	4,146	112,958,631	13,145,117	135,437,773	21,921,481	23,766,220	3,834,086	46,162,805	101,356,379	74.8	34,081,394	16,886,692	15,327,274	14,451,556
Southern	Nov.	6,305	18,614,662	1,230,590	21,752,371	3,978,603	3,967,999	422,547	7,417,143	16,672,644	76.6	5,079,727	2,602,741	1,952,279	3,277,201
	11 mos.	6,335	200,771,343	18,136,491	237,058,248	33,466,833	46,430,346	4,410,162	83,223,163	177,073,801	74.7	59,984,447	30,670,617	23,376,873	26,639,689
Alabama Great Southern	Nov.	327	1,384,686	47,109	1,598,240	226,440	358,685	31,976	554,427	1,234,996	77.3	363,244	237,835	104,675	274,175
	11 mos.	320	15,426,570	997,539	18,049,589	3,439,126	4,386,025	355,814	6,141,380	15,002,666	83.1	3,046,923	2,282,829	979,398	1,911,467
Cinn., New Orleans & Texas Pacific	Nov.	336	3,082,490	133,529	3,446,787	433,372	892,692	63,865	912,735	2,433,070	70.6	1,013,717	678,155	447,116	776,582
	11 mos.	336	35,669,895	2,218,267	40,139,546	4,859,620	9,331,354	736,678	10,754,178	27,063,411	67.4	13,076,135	8,835,909	5,271,370	7,399,027
Georgia Southern & Florida	Nov.	397	521,201	43,251	643,194	193,150	60,918	7,263	206,428	482,274	75.0	160,920	25,845	22,655	83,432
	11 mos.	397	6,021,221	832,415	7,580,358	1,743,462	737,177	83,468	2,398,050	5,171,995	68.2	2,408,363	702,580	535,478	563,832
New Orleans & Northeastern	Nov.	203	955,389	35,276	1,059,255	91,351	113,498	20,074	224,683	494,949	46.7	564,306	356,626	167,645	264,260
	11 mos.	203	10,784,152	585,540	12,057,008	1,569,201	1,411,159	215,707	2,739,213	6,431,652	53.3	5,625,356	3,508,586	1,751,826	2,209,462
Southern Pacific	Nov.	8,136	36,841,830	3,491,013	46,917,648	4,846,420	9,094,028	774,276	16,107,298	32,699,462	69.7	14,218,186	7,627,311	5,796,220	5,061,683
	11 mos.	8,130	403,076,216	39,209,438	472,983,282	52,973,373	99,392,794	8,442,766	181,050,714	363,269,031	76.8	109,714,251	59,795,221	39,257,461	43,991,271
Texas & New Orleans	Nov.	4,292	10,503,013	724,416	13,088,276	1,612,884	1,878,513	255,870	4,370,462	8,647,255	66.1	4,441,021	2,048,827	1,599,500	1,278,942
	11 mos.	4,299	109,462,300	8,888,004	127,436,605	19,594,337	19,317,806	2,731,403	48,635,156	96,111,011	75.4	31,325,594	13,428,389	8,902,203	11,602,806
Spokane International	Nov.	152	212,696	862	227,697	58,811	32,447	4,764	56,636	161,580	70.9	66,117	25,967	26,619	24,930
	11 mos.	152	2,274,482	10,236	2,416,731	622,330	273,273	52,891	638,036	1,688,934	69.8	727,797	271,600	292,690	399,475
Spokane, Portland & Seattle	Nov.	931	2,162,525	81,980	2,402,384	579,629	313,842	23,766	734,481	1,736,365	72.3	666,019	274,872	295,137	485,696
	11 mos.	931	25,676,054	968,816	28,059,668	4,644,903	3,400,483	268,686	8,395,090	17,668,355	63.0	10,391,313	3,755,471	5,340,221	5,328,271
Tennessee Central	Nov.	286	443,963	4,187	481,629	96,143	66,572	11,637	157,253	350,975	72.9	130,654	24,492	63,101	7,688
	11 mos.	286	4,354,797	164,899	4,785,955	1,001,284	749,895	122,898	1,614,007	3,702,536	77.4	1,083,419	273,585	430,541	478,626
Texas & Northern	Nov.	8	100,963	.....	113,726	1,080	8,558	1,031	33,780	48,742	42.9	64,984	38,214	19,315	27,809
	11 mos.	8	1,167,868	.....	1,303,354	134,031	129,569	10,462	332,058	655,743	50.3	647,611	333,508	181,038	356,304
Texas & Pacific	Nov.	1,846	5,545,305	372,843	6,683,658	844,653	1,074,475	177,970	2,143,962	4,554,349	68.1	2,129,309	762,913	1,065,826	1,025,659
	11 mos.	1,846	60,487,803	4,595,601	70,716,188	9,607,997	10,977,064	1,910,710	23,414,136	49,414,586	69.9	21,301,602	8,887,747	8,899,232	8,808,495
Texas Mexican	Nov.	162	234,712	.....	252,380	90,341	30,468	6,737	55,755	201,525	79.8	50,855	24,698	4,769	76,691
	11 mos.	162	2,711,671	.....	3,041,276	789,914	373,669	80,250	692,777	2,139,816	70.4	901,460	375,379	284,664	563,444
Toledo, Peoria & Western	Nov.	239	531,855	52	546,772	74,605	37,793	42,000	136,215	327,087	59.8	219,685	93,920	82,927	105,412
	11 mos.	239	6,130,609	248	6,219,726	1,051,748	422,635	469,060	1,482,919	3,791,532	60.9	2,428,194	1,100,316	827,682	939,217
Union Pacific	Nov.	9,756	38,255,398	3,064,684	44,539,858	5,142,934	8,227,980	865,464	16,005,299	32,339,357	72.6	12,200,501	6,946,274	3,692,412	3,965,624
	11 mos.	9,731	392,953,857	35,499,714	460,477,811	61,376,807	89,208,054	9,655,760	165,016,251	348,627,314	75.7	111,850,497	69,048,298	26,880,583	37,019,541
Utah	Nov.	110	187,233	.....	187,274	9,402	48,451	729	79,189	145,507	77.7	41,767	10,920	38,475	12,425
	11 mos.	110	1,222,284	.....	1,224,769	173,161	512,483	8,556	563,752	1,337,582	109.2	—112,813	115,543	—91,358	—83,832
Virginian	Nov.	643	4,252,308	2,193	4,473,479	569,736	991,051	44,725	991,228	2,684,095	60.0	1,789,384	1,053,000	880,062	646,103
	11 mos.	643	41,552,538	29,693	43,170,636	5,161,841	9,496,537	469,955	9,382,453	25,485,945	59.0	17,684,691	11,375,500	8,320,113	7,866,628
Wabash	Nov.	2,393	8,187,042	405,419	9,289,039	1,198,227	1,170,796	275,881	3,815,861	6,830,908	73.5	2,458,131	1,004,465	795,701	1,282,538
	11 mos.	2,393	89,212,479	4,699,519	101,151,921	14,667,168	13,084,707	3,026,554	41,935,277	76,616,356	75.7	24,535,565	10,844,402	8,085,569	10,145,132
Ann Arbor	Nov.	294	724,189	8,056	737,895	80,894	112,969	25,849	332,242	571,891	77.5	166,004	88,964	58,138	97,453
	11 mos.	294	8,312,983	15,025	8,522,247	1,086,486	1,170,545	280,511	3,552,411	6,303,654	74.0	2,218,593	1,178,174	829,074	1,272,215
Western Maryland	Nov.	837	3,858,809	7,733	4,099,565	413,327	834,019	78,748	1,252,242	2,700,975	65.9	1,398,590	885,000	790,269	692,262
	11 mos.	837	41,532,043	103,058	43,640,093	5,749,107	8,808,287	875,323	13,703,437	30,815,868	70.6	12,824,225	7,981,000	7,454,142	7,320,878
Western Pacific	Nov.	1,193	4,757,715	215,206	5,081,915	696,748	635,362	172,961	1,142,469	2,863,741	56.4	2,218,174	1,160,594	920,692	1,039,582
	11 mos.	1,193	46,925,163	2,763,866	50,805,614	6,942,151	7,210,235	1,952,459	14,117,600	32,892,901	64.7	17,912,713	9,885,740	7,005,121	8,205,180
Wisconsin Central	Nov.	1,046	2,481,737	36,800	2,846,527	343,117	535,919	62,121	1,194,017	2,233,034	78.4	613,493	74,048	336,430	399,642
	11 mos.	1,049	26,530,254	477,128	28,653,524	4,089,171	5,007,595	722,865	12,023,170	22,951,552	80.1	5,701,972	1,451,282	2,233,221	3,503,963

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A.R.E.A. CONVENTION NUMBERS, MARCH 10 AND 17,

. . . . . will feature editorial coverage of railway engineering officers' annual convention and exhibit.

March 10 issue offers added convention distribution; March 17 issue is the engineering convention proceedings report.

RAILWAY AGE

One of a series of advertisements prepared by THE ASSOCIATED BUSINESS PUBLICATIONS

Persuasive Leadership Shows Concern for "Other Fellow's" Ills, Not Just Its Own

"Business leaders in this country are doing next to nothing to stop the growth of socialism. Those in each industry are objecting to being socialized themselves, of course, but they are not objecting to the socialization of other businesses; and few of them are doing anything to oppose confiscatory taxation, which actively threatens to socialize them all. If business men are not going to oppose socialism effectively, then who is going to oppose it? And what chance is there that its steady advance is going to be stopped, regardless of which party wins at the polls?"

Such, in substance, is the observation of Samuel O. Dunn, for many years the distinguished editor of this paper, and continuing as its valued counselor.

The warning is a timely one for railroad men—who in 1952 are probably going to talk longer, more loudly, more frequently (and more eloquently, it may be hoped) than ever before about the evils of socialism, actual and prospective, in the transportation business. Surely they will find it easier to attract and convince audiences, if they signalize and deplore the "other fellow's" troubles as well as their own. Devotion to the public interest is demonstrated more convincingly by defending the good and combating evil, wherever found, than it is by limiting one's defensive efforts only to that part of evil which happens to be painful to the complainant.

In all probability, the greatest forces making for socialization of the economy are two in number. They are: (1) the unlimited taxing power conveyed to the federal government in the income tax amendment to the Constitution, and (2) the abandonment of the gold standard. All the other constitutional safeguards to personal liberty and property, limiting the power of government over the individual, became pretty much of a dead letter with the adoption of the amendment granting to Congress unlimited power to tax personal and corporate incomes. If the amendment were repealed—or if a reasonable "ceiling," and possibly a "floor," were inserted in the existing amendment—the federal government would be deprived of the revenues to extend itself, as it has, into many of the fields it has invaded.

The door could be still more firmly closed to further governmental excesses by a return to the gold standard—that is, by requiring the redeemability of all legal-tender currency in gold coin. A lot of technical objections can be raised to this latter step, and maybe the "return to gold" would have to be approached gradually. But, unless redeemability of the currency in gold is re-established, there can be no sure check on governmental extravagance.

As long as government can get all the money it wants by simply, in effect, giving the banks its bonds and taking the proceeds in paper money, which the banks issue with the bonds as "security," there can be no check on governmental profligacy.

"Sound Money"

There are at least two substantial "sound money" organizations in this country—the Economists' National Committee on Monetary Policy, 1 Madison avenue, New York 10; and the Gold Standard League, 1 Lloyd avenue, Latrobe, Pa. The movement to circumscribe government power to confiscate incomes has taken the form of a resolution, already ratified by more than half the state legislatures, calling upon Congress to summon a constitutional convention for the purpose of limiting taxation to 25 per cent. Would it be unjust to suspect the depth of the anti-socialist zeal of any spokesman for business who complains at the inroads of socialism in his own business, but who has not shown sufficient interest in basic issues to affiliate himself with the movements for "sound money" and for limiting the power of Congress to tax incomes?

The nation's leading educational authority in the field of managerial training—Dean Donald K. David of Har-

vard—recently addressed the Society for the Advancement of Management, giving his concept of "three categories of management responsibility." The first category comprises the obligation of management to operate its business at a profit, because, obviously, "an unprofitable operation cannot for long make any contribution to society."

Leadership from Management

The other two managerial responsibilities, while not as primary as earning a profit, are scarcely less important. They are, second, operating the business in such a way that it is recognized as "a good place to work"; and, third, "constructive participation in the broader affairs of the community and nation." Regarding this third category, Dean David said:

"In my opinion, management should take a conscious position on national policies and legislation. The future of our industrial society demands forward-looking leadership on the part of business management. . . . In considering the attitude to be adopted by a company on public issues, it is essential that the attitude be statesmanlike—one that recognizes the long-run objectives of the nation. Once having formulated an opinion on national issues, a company should be willing to support its position and publicize it wherever appropriate. Living up to such a responsibility will, I think, call for courage since in some instances your stand may prove to be unpopular."

The field for courageous and intelligent spokesmanship for sound American principles in economics and politics is not crowded—especially when the interpretation of these principles is not narrowed down to those aspects which will advance the selfish interests of the speaker's own business. There are plenty of violations of these principles which adversely affect the interests of the railroads—so, in defending these principles, railroad men would not be engaged in wholly quixotic and philanthropic endeavor. But, certainly, no one ever successfully led a courageous attack in either war or politics who carefully assayed beforehand the minute details of his selfish advantage therein. Successful leadership in such cases gives—and lets the getting take care of itself. "Cast thy bread upon the waters . . ."

Most Americans, probably, are not greatly concerned with saving the railroads from socialized collapse—but they are, or could be, highly interested in saving America as a whole from that fate. If railroad leadership can honestly and emphatically identify itself with the defense of the principles which mean the salvation of the country, it ought not have too much difficulty in getting acceptance of its advice on the steps needed to restore solvent private enterprise in transportation.

WHAT IS ECONOMICAL MAINTENANCE?

In his paper before the annual meeting of the Air Brake Association held at Chicago last September H. I. Tramblie, air-brake engineer of the Chicago, Burlington & Quincy, raised the oft-debated question as to what standard of maintenance is most economical. The paper, which dealt with "Maintenance of Car and Diesel Clasp Brakes," pointed out how faster train speeds necessitate ever higher brake safety standards; how present-day intensive utilization means less time available for daily cleaning and maintenance; and how the more complicated equipment required for passenger-train braking increases the amount of skilled labor, material cost and maintenance facilities required.

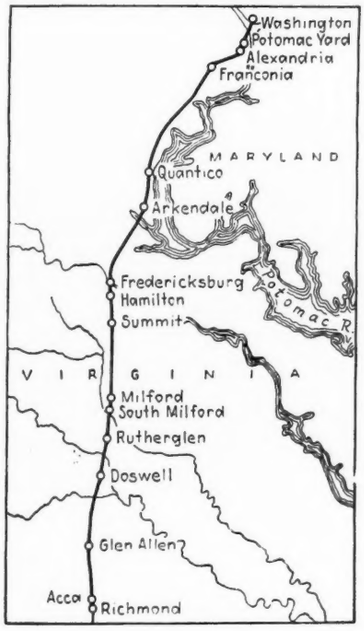
The author emphasized that safety requirements must be met regardless of every other consideration, and admitted that there is no unanimous agreement as to just what constitutes the minimum requirements for safety. But the real controversy, and one which is of long standing, has to do with the question of how much above minimum safety requirements brake maintenance standards should be set in the interest of economy in maintenance expenditures.

Regarding this point, Mr. Tramblie quotes the time-honored bromides: "Poor workmanship is always most expensive in the long run," and "The most economical way to do a job is to do it right," but backs them up with the following forceful testimony from his own experience on the Burlington:

"We have found beyond question that high quality brake maintenance is the most economical in the long run. It is possible to cut maintenance to the bone and do only the minimum required to keep the brake operative, but such practice will not promote economy or safety. The elimination of loose and floppy rigging which rapidly wears out at high speed, will more than pay for itself in longer life and reduced repair bills. Accurate adjustment pays rich dividends in increased brake-shoe life and in giving the engineer a precision brake which improves handling and makes overbraking unnecessary."

Obviously there is some point which represents the minimum cost of maintenance on any type of rolling stock: it is not the point at which the least amount of work required to meet the minimum safety standard is done whenever a unit of equipment is in for repairs. The least expenditure which will return a unit of equipment to service may also return it to the shop or terminal for more work long before it should have to receive further attention. As long as additional expenditures will extend the period of trouble-free service, they are likely to be economically justified, particularly in the case of passenger-train cars, with which out-of-service time usually represents a serious loss.

The radio telephone set is conveniently placed in the cab of each locomotive



Map of radio territory

Radio Reduces Train Delays

New system on 110 miles of double track on the Richmond, Fredericksburg & Potomac provides communication between dispatcher's office and trains, from one train to another, and from end-to-end on freight trains

In addition to using its new radio train communication to save several minutes here and there on every train trip, the Richmond, Fredericksburg & Potomac has found that this new adaptation of telephones is a big help in cutting out a big part of an otherwise long delay when something goes wrong—such as a hot box or a train broken in two. This new radio has been applied on the entire 110 miles of double-track main line between Richmond, Va., and Washington, D. C. It provides communication in both directions from one train to another, and from end-to-end on freight trains, as well as between the dispatcher's office and trains on any part of the road. This latter operation is handled through automatically controlled wayside radio stations at high points along the right-of-way.

Two-Channel System

The new radio system provides for communication on two channels. All mobile units are arranged to receive on channel No. 1 only, but can be made to transmit on either channel No. 1 or channel No. 2 by operating a selector switch. The wayside radio stations are connected to the dispatcher's telephone circuit, and are arranged to transmit on channel No. 1 only, and to receive on channel No. 2 only. This hook-up permits radio communication between mobile units, train-to-train and

In each caboose, the portable handie-talkie radio set is in a rack within reach of a man seated in the cupola or standing in the runway

Radio equipment in the wayside stations normally is remotely controlled from the dispatcher's office

end-to-end, on channel No. 1, without being heard by the train dispatcher located at Richmond. The mobile units can make contact with the dispatcher by using channel No. 2 for transmission, and the dispatcher replies on channel No. 1.

On Locomotives and Cabooses

Conventional radio equipment is used on the diesel-electric locomotives, and portable handie-talkie units are used on cabooses. The caboose cars are equipped with a permanent antenna mounted on the roof, and a rack for holding the portable radio inside the caboose. The handie-talkie unit is placed in the caboose at Richmond prior to the departure of a train, and is connected to the outside antenna. When the caboose returns to Richmond, after making a round trip to Potomac Yard, Alexandria, Va., the handie-talkie is removed from the caboose, the storage batteries are removed and fully charged storage batteries are installed. The handie-talkie unit is then available for the next trip.

While in a yard or on the road the conductor can call his engineman at any time, or can call the dispatcher if the train is within range of a wayside station. Normally, however, the handie-talkie set is turned off, and the conductor cannot be called. This feature is not considered important, as the conductor will get in touch with the engineman if he sees anything wrong with his or other trains, or if his train reduces speed unexpectedly.

Freight trains on this road include as many as 150 cars, and communication is satisfactory in end-to-end service between locomotive and caboose. At some locations the terrain interferes with the operation of radio, so that, with a long train, the conductor, when using a handie-talkie unit on the ground alongside the train, may not be able to communicate with the engineman. Under these circumstances, the conductor climbs to the top of a box car, and from that position is able to establish communication.

Five Wayside Stations

The main-line wayside radio stations, five in number, are placed at high points along the right-of-way. The radio equipment is the same type as that used on the diesel locomotives, and is interchangeable. The radio equipment at each station is housed in a 6-ft. by 6-ft. by 8-ft. steel building. The antenna is mounted on top of an 80-ft. pole. The receivers at all five stations are connected to the dispatcher's telephone circuit. When a mobile unit calls a dispatcher on channel No. 2, the call is heard in the dispatcher's office in Richmond. The dispatcher replies by operating a switch which places energy on a simplex circuit that is broken through the dispatcher's telephone foot switch. When the foot switch is operated, relays at all wayside stations are energized, disconnecting the radio receiver and connecting the transmitter to the dispatcher's telephone circuit. The dispatcher uses his telephone equipment in the same manner when on the air as when off the air, the only difference being the operation of the radio control switch.

Selection of Wayside Stations

Means are provided to select and disconnect all wayside radio receivers except one from the telephone circuit. This was done to eliminate noise on the telephone line when a mobile unit calls the dispatcher from a location that might be received simultaneously by as many as four of the wayside stations, the far stations being noisy. As the approximate location of the train is known

to the dispatcher, the nearest radio station is selected, and the other stations are removed from the line by use of the telephone selector ringing equipment. This circuit is arranged so that all receivers automatically will again be connected to the line approximately 20 seconds after the dispatcher's foot switch is last operated. Local controls are provided at the main-line radio stations to permit testing each station individually for range. In the event of a major pole-line failure between wayside radio stations, communication can be provided by radio link.

There is a yard wayside station at Acca yard in Richmond, and Potomac Yard, near Alexandria, Va. The equipment at these stations is a 10-watt automobile type radio, arranged for a.c. operation. These radios transmit and receive on channel No. 1 only, and are used by the yardmaster to instruct arriving freight trains regarding the disposition of their trains. The communications maintainer's truck is radio equipped to provide a means of making contact with the maintainer when he is on the road. This equipment also allows the maintainer to make remote checks of the operation of the wayside radio stations.

Benefits of the Radio

The value of radio communication in train operation is recognized by the entire operating personnel. For example, a station agent, with 40 years' service, told the trainmaster the details of a complicated switching movement performed by a tonnage train at his station, explaining the speed in which it was accomplished by the use of radio instructions without hand signals.

On one occasion a coupler knuckle broke in a 130-car freight train, 85 cars from the head end, while it was passing through a busy interlocking plant. The fireman on a following passenger train using the adjacent track overheard the engineman and conductor of the freight train discussing the situation by radio. The fireman advised the conductor and engineman of the freight train, by radio, that he would drop off an emergency knuckle from his engine at the car that was in trouble, as his engine passed the freight. In another instance a station hand observed marks on the station platform, made during the passage of a passenger train, and he notified the dispatcher by telephone. The dispatcher immediately got in touch with the passenger train by radio, and an inspection disclosed a broken equalizer bar on a mail car.

Passing trains with hot boxes or shifting loads are noted by track forces or other employees who advise the dispatcher by telephone. He, in turn, gives this information to the engineman of the train by radio, and informs him the nature of the reported trouble, together with the location in the train. End-to-end communication permits trains to be stopped from the head end, instead of by the conductor.

When trains are delayed, the dispatcher is immediately notified, and, if necessary, following trains are routed to other tracks with minimum delay. False restricting signals are reported at once to the dispatcher, and the signal trouble is cleared with minimum delay to following trains. Many freight-train stops are avoided by advising the train to reduce speed pending conclusion of conflicting movements at interlocking plants. Also switching movements at interlocking plants are expedited by determining the exact location of approaching trains. Enginemen have been able to correct minor trouble to diesel locomotives on the road, by communication with diesel maintenance personnel.

The major items of radio equipment in this R. F. & P. installation were furnished by Motorola. The system was planned and installed by railroad forces under the direction of V. P. Shepardson, engineer, signals and communications.

Letter from a Reader . . .

Windowless Offices —An Improvement or Otherwise?

COATESVILLE, PA.

TO THE EDITOR:

It is gratifying to read your interesting articles about new railroad buildings and to realize that the railroad industry is striving to discredit the notion that railroads are conservative and old-fashioned. But the wisdom of the Toledo, Peoria & Western's windowless architecture (*Railway Age*, September 10) is questionable, even in these modern times. When the trend in the building of private homes seems to be toward more windows, it is surprising that an industry decides to do without them. Apparently the budget, rather than human considerations, guided the architects.

The last paragraph of the article supplies the amusing note that the building was designed under the personal direction of President J. R. Coulter, who allotted himself two corner windows, while denying this visual access to the outer world to his executive staff and the office workers. The reason given is that he must see the yard and check the trains moving through it—but isn't that the job of the yardmaster? Actually, he is the victim of that "tradition and stereotyped thinking" which the design of the building is supposed to defeat. He has the railroader's yearning to see the trains go by, and the human desire to view the sun, clouds and that attractive grove of trees behind the building.

The economical advantages are obvious, but it would be interesting to read a psychological explanation of the advantages to employees' morale, if any psychologists were consulted—or better still, the spontaneous opinions of the individual employees. The cheerfulness of sunny days and the gloom of rainy days are probably ironed out to a consistent average temperament, but it is doubtful whether human efficiency is appreciably increased.

This new enlightment in architecture has not yet reached Minneapolis, where the Minneapolis & St. Louis has generously furnished its new headquarters with windows, traditional but insulated (*Railway Age*, August 27). The cave-dwelling T.P.&W. employee, if he makes a comparison, must wonder who is guilty of "stereotyped thinking."

D. M. MCNIVEN

[Our correspondent is entitled to his opinion about windows, whether favorable or adverse. The editor does not take sides in a controversy pertaining to a specialized field of knowledge to which he has given little study. When our correspondent imputes motives to Mr. Coulter, however—especially that of "stereotyped thinking"—it seems reasonable to question the adequacy of his information.—EDITOR]

Desk model dictating machine of the telephone-type occupies little space. Light indicating whether or not the recorder is in use, and play-back button, are in the lighter area on the base

The vertical dictating station is attached to the sides of desks. On this model, play-back button and warning light are on top of the "base"

New Dictating Systems Enable B. & O. To Handle Correspondence Currently

Personnel scattered throughout office use telephone-like equipment to "give" dictation to central recorder; peaks and valleys of stenographers' work eliminated

By C. A. STRICKLAND

Manager Office Methods and Procedures
Baltimore & Ohio

By eliminating twenty per cent of the transcription time required in doing a given volume of work and reducing almost to the vanishing point "held over" work, a new telephone-type dictating-recording system has provided both economy and better service to the office of the superintendent of car service of the Baltimore & Ohio. This system replaces acoustical dictating machines. The complete installation consists of eleven telephone-type dictating stations, two central recorders for "taking" the dictation, and three transcribing machines. In addition, one individual dictating instrument was provided for a heavy volume dictator.

The dictating stations are placed on desks of employees in widely separated parts of the office. The two central recorders are on the desks of stenographers in the stenographic pool. Four dictating stations are linked to one of the recorders and seven similar stations are linked to the other. The eleven stations are used by 21 persons. Seventeen persons use these instruments regularly and four other people use them on occasion. A few stations serve only one person each, while other stations serve two, three or four persons.

This type of dictating equipment is most useful where the volume of correspondence handled by each individual is not heavy. In the car service office, during a five-day study period (see accompanying table), six employees averaged dictating less than 300 words per day, while only four exceeded 1,000. Should the amount of dictation handled by one person, or a group of persons, using a given station or stations increase, the system has a 40 per cent reserve capacity to take care of the additional load.

The dictating instruments are similar in appearance to telephones and are available in two types: a desk model to sit on top of a desk or table (illustrated); and a vertical model to fasten to the side. However, the system has nothing to do with the telephone lines and does not interfere with telephoning.

Telephone-type wires connect the stations to the recording machines, which automatically record the dictation on plastic discs. The recorder, incidentally, may be located on the same floor as the dictating stations, on a separate floor, or in another building.

The dictating "machine" not only resembles a telephone in appearance but it is also almost as simple to operate as the telephone. Consequently, learning to operate the instrument is easy for a person who uses the phone. When the dictator learns the following facts he can operate the machine: (1) In the hand set of each station there is a small button called the "talk" switch. Pressing and releasing this switch starts and stops the revolving turntable of the recorder. (2) A second button, on the base of the instrument, permits the dictator to play back his last recorded sentence or two for checking or correction. (3) Corrections are indicated by merely pressing the buttons on the hand set and base simultaneously. (4) The endings of letters are automatically indicated at the recorder when the dictator hangs up. (5) A small signal light on the instrument base indicates, at all stations on the circuit, when the system is in use by some other dictator.

In our car service office the present dictating system there is producing a constant flow of work from the dictators to transcribers. Formerly, dictated wax cylinders would accumulate on the dictators' desks while work at the stenographers' desks would be slack. Once these backlogs were moved over to the stenographers, peak loads were created which demanded more than "normal" help if the correspondence was to get out on the same day.

Under the present system dictation is recorded on discs at the stenographers' desks as rapidly as it is dictated. Stenographers are able to gage their backlogs at all times and the peaks and valleys have been smoothed out. In addition, discs are filled to capacity, requiring less total time to change than under the former system where many short-length cylinders were used. Also, the electronic recordings make the dictation much easier to understand than with the acoustical machines. All these features have contributed to a reduction of approximately 20 per cent in transcription time required. When individual acoustical dictating machines were in use, the services of three full-time and three part-time stenographers were necessary to handle the car service department's work. Under the present system, three full-time stenographers now do the transcribing. There is no longer need for the additional help to handle peak loads and to clear up backlogs, and the time required to get correspondence back to the dictator for signature has been reduced substantially.

The telephone-type dictating station requires less desk space than did the machines formerly used, and because the new instruments are light in weight they are easily accessible to persons at adjoining desks. The system has eliminated completely the need for the dictators to change cylinders—and to store them—at their desks. Also, the transportation of files between the dictators and the stenographic pool no longer is necessary. And since there no longer are any cylinders in use, the transporting and shaving of cylinders has been done away with, which has saved about $200 worth of messenger time per year. The discs are much easier to handle and store in the pool than cylinders, and they may be re-surfaced many times, by the supplier, at about one-half the cost of new discs.

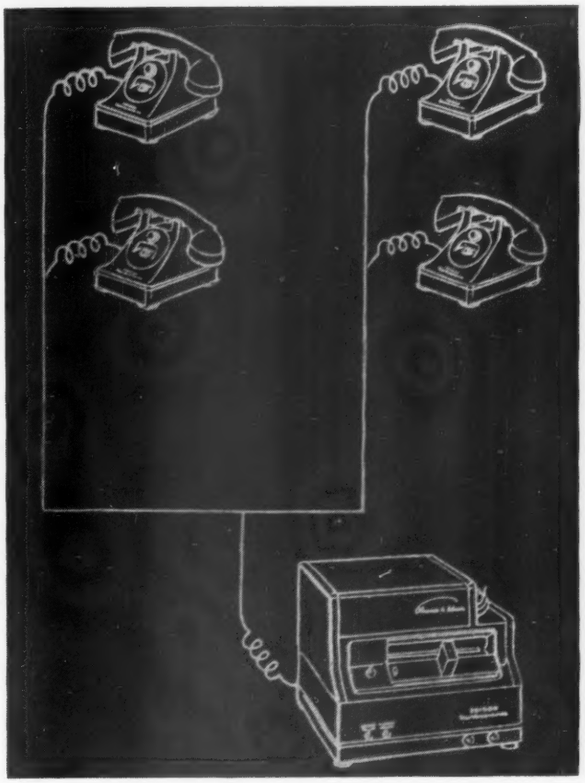
Similar dictating systems were recently installed, in the transportation and office methods and procedures departments, which are producing results comparable to those obtained in car service.

Aside from telephone-type dictating equipment, the B. & O. uses several hundred dictating-recording machines of other types. Within the past year 35 wire recorders have been purchased for recording conferences and investigation proceedings and for dictation of correspondence. In addition, the accounting department recently placed 15 individual electronic dictating and transcribing machines in the regional accounting offices, which will replace shorthand-taken dictation and save approximately $11,000 annually. A number of machines also have been purchased by other departments to replace equipment that has been worn out by many years of usage.

AVERAGE NUMBER WORDS DICTATED DAILY
Car Service Office

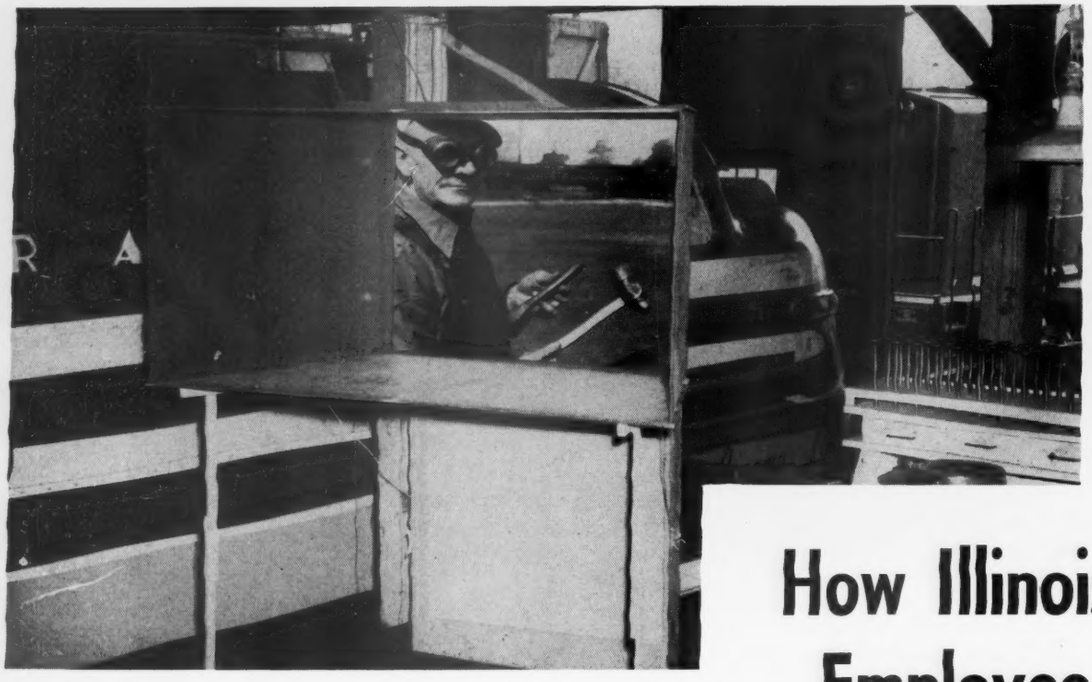
Station	Employee	Number of Words	Dictating Station Total	Total Words to Central Recorder
		Circuit No. 1		
1	A	858		
	B	298		
	C	474	1,630	
2	D	818		
	E	42	860	
3	F	533		
	G	180	713	
4	H	106	106	
5	I	474		
	J	283	757	
6	K	284		
	L	309	593	
7	M	393	393	5,052
		Circuit No. 2		
8	N	1,617	1,617	
9	O	1,463	1,463	
10	P	1,242	1,242	
11	Q	1,052	1,052	5,374
Total				10,426

Recorders are kept on desks of stenographers while transcribing machines are placed beside desks in the conventional manner. Girls can handle the two machines with ease



This diagram shows how the dictating stations are connected to the recording apparatus

The latest mobile unit can show sound slides and sound motion pictures even during the daylight hours



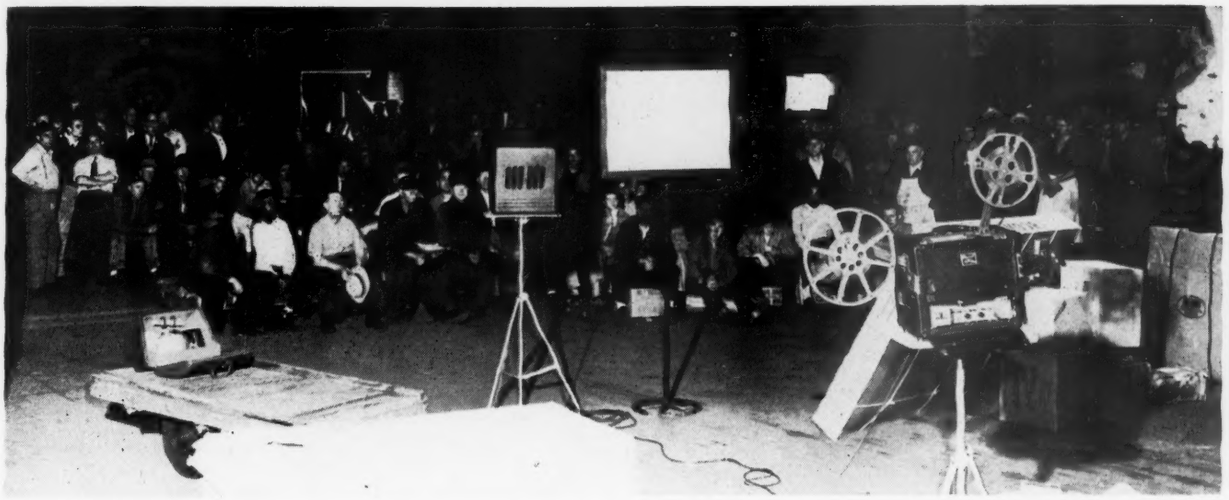
With a shadowbox screen, pictures stand out clearly during daytime without the necessity of darkening the shops or room

How Illinois Central Employee Training Makes Wide Use of Audio-Visual Aids

From an early and simple beginning nearly 60 years ago in the use of photography for purposes other than pictorial records of special occasions, the Illinois Central has built up a library of audio-visual aids to education, as well as a department for preparing such aids, which today has an inventory of some 250 sound movies, 25 silent movies, 10 slide motion pictures with sound, 150 35-mm. sound slide sets, 50 film strips, 10 standard lantern slide sets, and 50 disc recordings.

Photography, in the form of black and white still pictures, was first used for employee training and morale as early as 1894. Motion pictures were first used shortly after the turn of the century. The initial movie of this category was taken of a box car on which the sides were covered only with wire screening so that the interior of the car and its contents could be observed during switching and after impact at various speeds.

Today the Illinois Central maintains a complete photographic laboratory and an audio-visual aids department which can handle almost any photographic demand



With a rear projection mirror, the camera is mounted behind the screen, keeping all wiring away from the audience. This arrangement, like the shadowbox screen, permits showing under lighted conditions

Making preparations to show a film to a large outside group. The screen is 9 ft. by 12 ft. with a 175-ft. throw from the camera. Such an arrangement is roughly equivalent to a 5,000-seat auditorium

placed upon them, movie or still, including colored sound motion pictures. The independent set-up for this work was established in 1944 as part of the personnel department. The first educational work completed was a slide series entitled, "Safe Work Procedure in Shops and Roundhouses." This series was sent to every mechanical unit on the railroad. It comprised 80 slides, each one in three parts, a title describing the safety rule, the wrong way to do the job, and the right way to do the job, including an interpretation of the rule.

Since making this slide series emphasis has been placed almost entirely on motion pictures because they are felt to be a great deal more effective than still scenes. One practice followed in making the slides has been continued in making movies, that is to use as many different locations along the road as possible in turning out the overall presentation. This helps to build up local interest by being a part of the production, and by the inclusion of familiar faces and places. This is not considered distracting to the audience. On the contrary, it is felt that the viewer devotes more of his attention to the subject of the film and less to examining the details of the background when the background is familiar to him.

The work of the audio-visual aids department is intended to supplement rather than to replace local meetings and other local educational ventures. On safety matters in the mechanical department, for example, the I. C. requires each local supervisor to hold at least one safety meeting each month. The length of the meeting is left to his discretion, and he may hold as many others as he wishes. He is free to call upon the visual aids department whenever he feels that he can make effective use of any of its material.

The primary reason for the establishment of the expanded audio-visual aids department is to make 16-mm. sound movies. It began as a one-man department for accumulating movies, 35-mm. film strips and standard

Mobile unit under construction at I. C. Burnside shops

Filming a scene in "Suggestions Unlimited." This movie, originally made in 1945, has been shown throughout the United States, Canada, England and Australia. It has proved so popular that additional prints are being ordered

lantern slides as well as the equipment with which to show them. It also brought together and indexed as many pictures as could be found that would be useful to the railroad. Thus the department functions as a service to all departments in the form of a library of audio-visual aids.

The department today has four full-time employees under the director of personnel and is divided into three divisions—library, production and presentation. The library further divides its material into three groups. The first is technical subjects for employee training, such as diesel locomotive maintenance, "how to do it" series for various jobs performed by several departments, safety, courtesy and other general instructional films. The second group is general railroad films and railroad safety subjects of interest to the public. It includes films produced for the A.A.R., and public relations films from the files of the A.A.R. and other railroads. Pictures in this group are on the general subject of railroad transportation. They are kept for showing whenever requested, or in special safety campaigns conducted by the railroad. The third group consists solely of the Illinois Central's centennial motion picture, "The Song of Mid-America." This, while only a single film, is a major function of the library as it includes the showing and the lending of this highly popular film which has already been seen by 175,000 people since its release the latter part of last July.

The second major division is production and is being expanded substantially. The department is in the process of installing complete sound movie camera and recording equipment, and will soon be equipped to make technical movies with synchronous sound. The ability both to make the picture and to record the sound on the spot will permit the use of the railroad's own technical department men for the narration on the spot. In this way both sincerity and "know how" will be secured. With the camera available it is also expected that considerably more work in the making of movies will be done inasmuch as the direct cost per picture will be substantially reduced. Among future films to be done are a tailor-made movie for a new diesel instruction car which is under construction, and a 20-part series of sound colored motion pictures on all phases of track motor car operation, maintenance and safety.

The showing of employee training, safety and morale building motion pictures to employees, the third function of the audio-visual aids department, is done in one of three ways: (1) permanent projection room and facilities maintained at larger points; (2) shipping the complete film program with equipment for showing it; (3) a mobile unit for small outlying points.

In all cases the film is serviced and maintained by the library. In some cases local films are obtained, with the library again furnishing any projection equipment necessary.

No Point Too Small for Films

The extent to which the Illinois Central has gone to provide audio-visual aids to education to the maximum number of employees is exemplified by the mobile unit. This is a completely self-contained and self-propelled unit for showing slides or pictures at the smallest and most isolated points. The idea for the mobile unit was first advanced in 1945, and the first unit was turned out in 1946. This first unit was constructed at the road's Burnside shops in Chicago, as were two subsequent ones.

The original unit was a two-wheel vehicle with a screen 8 in. by 10 in. on which sound slide film (still pictures) were shown. Power to operate the projector and sound equipment was furnished by a gasoline-engine driven

generator, and the unit was hauled by an ordinary passenger automobile. While it proved successful it was not capable of handling the number of men it soon attracted to meetings.

The second unit, like the first, was a two-wheel vehicle with its own power supply drawn by automobile, but it had a much larger screen, 24 in. by 30 in. In addition to the sound slide projector it had a 16 mm. motion picture projector. Several months experience disclosed that this machine was too large and heavy to be handled and used efficiently in all locations.

The third unit, in use today, has proved successful. It is a half-ton panel truck converted into a visual-aid unit with a screen 24 in. by 30 in., a sound slide projector, a 16 mm. motion picture projector, public address system and its own generating plant. It can show pictures outdoors, on the job, during daylight hours by means of near projection with a translucent screen, and has, in addition to the screen contained in the unit, a regular 6-ft. beaded screen which can be employed for larger groups at inside showings by removing the projection machine and using in the conventional manner. It has been used for three years with audiences numbering from one man to 1,200.

Separate programs are provided for the different classes of employees, such as enginehouse, car shop, train and enginemen, office personnel, maintenance of way, etc., and are in general limited to about a half hour. The operator of the mobile unit, when not showing a safety program, mingles with the men, riding cabooses, engines, track motor cars, work trains, etc. He makes inspections of tools, equipment, machinery and clothing, and observes conditions in roundhouses, car yards, train yards, stations, and warehouses. Where he notices unsafe conditions, violation of safety rules, or other hazards, he normally brings the matter to the attention of the local supervisor, but if the supervisor is not immediately available, he may go directly to the individual concerned. If he feels that a gang or group of men appear too careless, for instance, he calls them together at once for a brief talk and discussion.

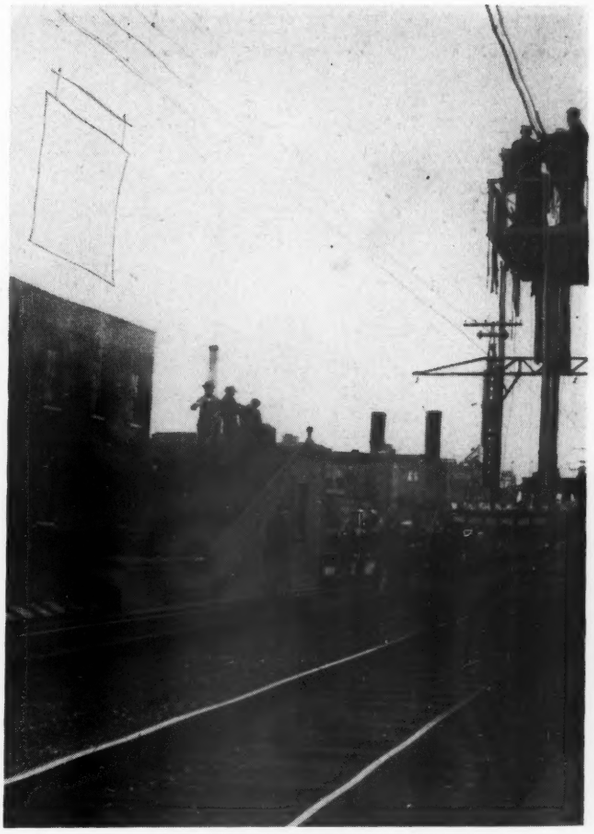
Movies are rapidly supplanting other visual-aids media because the men get more information from them than any other medium and they retain it longer.

Results of the Program

The results of an educational program are not easy to measure directly. However, on the Illinois Central, several divisions had safety records with seven to nine reportable personal injuries per million man-hours prior to the operation of the visual-aids program, and this ratio was reduced to from one to three reportable injuries per million man-hours. The value of motion pictures in putting across information is attested by an example of where a film was made for the legal department. In this case the Illinois Central was the defendant in a trial on hazards at some grade crossings. The road had a movie made to defend its position in the demand for depression of tracks on the South Chicago branch of its suburban service. The plaintiff immediately had a second movie made to counteract the first. The railroad was ready to make a third movie when the case was turned over to a committee to work out a solution out of court.

Procedure for Getting Films

Films in the library may be requested directly by the local supervisor. The film is then sent with a copy of the shipping form to the superintendent, master mechanic,



Taking high-speed movies to find the cause of abnormal wear of catenary wires on curves. The back-drop in the upper left is to improve contrast and lighting

division engineer or the district supervisor in the appropriate department, as the case may be. If a film is requested at a small local point either the mobile unit is sent or the request is forwarded by the appropriate local supervisor to have the necessary equipment on hand.

When someone wants a film which the library does not have, every effort is made to procure it. In one case the mechanical department requested a film on the care and servicing of diesel locomotive steam generators. In its search the library found that a slide film on this subject had been made for the U. S. Navy, which they were able to procure from Vapor Heating Corporation. In cases where the film cannot be obtained but would have to be made, no definite procedure is set up. Individual cases are handled as they arise.

Many ideas for pictures comes from the employees' suggestion system, and the sources for obtaining these films are many and widely varied. Among these are the National Safety Council, the Navy, other railroads, and industries whose products are used on the railroad and who have made films explaining some phases of the operation.

In most cases the Illinois Central makes its own leads for these outside films, and in some cases certain editing has to be done to conform to I. C. practice. For example, one film on switching showed the switchman riding the leading footboards of the locomotive. These scenes had to be cut because the I. C. does not permit men to ride leading footboards.

Quite often it is found that a film made for one department is highly useful for one or more other depart-

An educational movie being shown to an audience of 500 at Burnside shops

ments. Several years ago a picture was made for a court case involving smoke violation. The film showed the precautions taken by the railroad to minimize smoke. This picture has now proved valuable to the mechanical department for instructing employees on how to build fires and handle other operations with a minimum of smoke.

Investigative-type pictures to solve technical problems are another important function of the department. High-speed motion pictures at 5,000 frames per second were taken to determine the effects of arcing on pantagraph shoes and overhead catenary transmission cables on the I. C. electric suburban system, and to find the cause of abnormal wear of the wire on curves. This is but one example of the use of motion pictures to solve a technical problem, but it is a good one. Motion pictures, while not solely responsible for the solution of a problem such as this, did furnish the extra bit of information needed to arrive at that solution.

Secondary Functions

The visual aids department has an important secondary function. It gathers lists of technical films available to find new pictures which will be of value to the railroad. Selections are made from the lists for previewing with the top men in the department which would be interested in the film. On one typical morning five pictures were previewed: A travelogue screened for, and of interest to, the traffic department; a film on fuel conservation for the operating and mechanical departments; a picture on economics for the personnel department for employee education; one on safety for the personnel department; and one on office etiquette for the personnel department and for office managers.

Another special service rendered by the department is of value to traffic men. General educational films. and films owned by the railroad which might help a shipper in his operations, such as telephone courtesy, or proper loading of cars for the prevention of damage and resulting claims are shown to agent's customers or by furnishing the film from the library for their use.

In addition to the pool of projection equipment available from the Library, the I. C. also has 13 of the latest type Bell and Howell Filmo-sound motion picture projectors, one for each division of the railroad. The Illinois Central was the first railroad and the second company in the country to purchase what is known as a JAN 16-mm. projector. This is an exceptionally rugged and versatile projector for outdoor and large auditorium uses developed to joint Army-Navy specifications. For movies inside of dining cars and coaches, a rear view mirror type of projector is used. This keeps all wiring away from the audience for safety, and it permits showing films without darkening the car or room. Films may also be shown under daylight conditions with a shadowbox screen and by the mobile unit. The projection of movies without having to darken the space in which they are shown is an important objective, particularly when the showing is in a shop, office or other working area, because it avoids much interference with the employees' work.

A test section of vapor-dried crossties on the Asheville division of the Southern. According to Mr. Akers, observation of these ties after eight years of service shows that splits and checks have been "greatly minimized"

More Effective Materials and Methods for Maintenance Work . . .

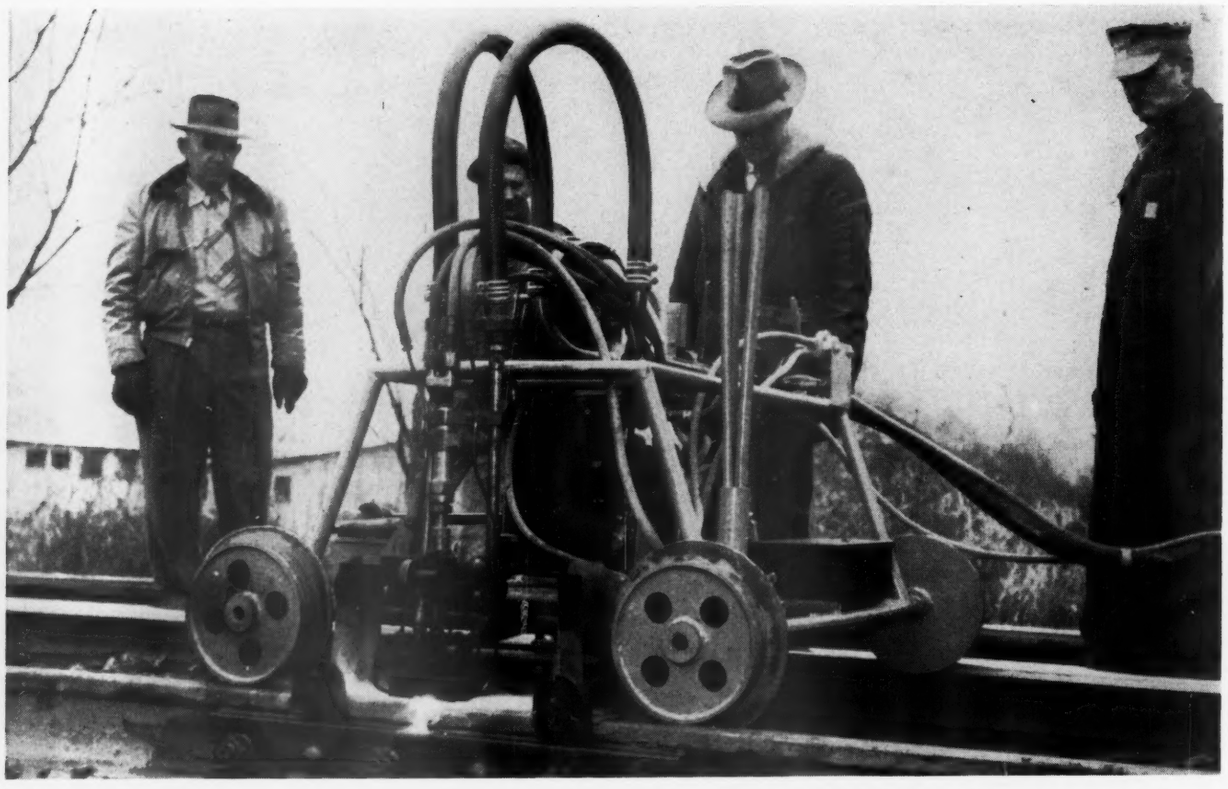
. . . Require emphasis of these principal points:

- *Track construction commensurate with traffic volume*
- *Conservation of materials–rails, crossties, ballast*
- *Training systems for supervisory personnel*
- *Use of machines, including mass-production equipment*
- *Practice of the principles of better human relations*

By
J. B. AKERS
Chief Engineer
Southern System
Washington, D. C.

I read an interesting editorial in a recent issue of *Railway Engineering and Maintenance* to the effect that individual railroads differ markedly in the financial situation and in the methods and materials they must use. Some roads must watch operating expenses more closely than others in order to remain solvent. Of course, we all say we watch operating expenses better than anyone else, but I believe there is little doubt that some railroads are quicker to introduce cost-saving innovations which usually do not require a large initial expenditure. We might speak of

This article is based on an address presented at a recent meeting of the Metropolitan Maintenance of Way Club, New York.



Measures for conserving rail on the Southern have included the development, in collaboration with the Air Reduction Company, of this machine for heat-treating the ends of new rails in track

some of the railroads as being relatively affluent and others less affluent.

The magazine goes on to say that "all railroads are 'brothers under the skin' as regards the need for effecting savings, the only difference being the degree to which this need is present." For most it is more and more difficult to keep expenses sufficiently below income, and to provide funds for needed improvements.

The means for these "savings" will be the result of ingenuity, aggressiveness, or whatever you choose to call it, of all railroad men as a group. Some of the larger savings have been the result of the performance of what we call maintenance work. Great savings have already been produced as a result of improvements such as heavier rail, creosoted ties, large tie plates to save the ties from mechanical wear, the use of machines for doing track and bridge work, and other means. There is no question but that, through the use of heavy and strong track materials combined with excellent supervision, substantial savings will continue to be made by these means. As a simple illustration, we all know that 132-lb. rail will have a traffic life several times that of 100-lb. rail if the traffic is such as to jutsify its use.

Rail Weight and Traffic Volume

Fortunately, most railroads are now using stronger and better track materials, and the idea of using them does not have to be "sold." All of us will provide for rails of sufficient weight within the limitations of our finances. There seems to be a somewhat general agreement that where the traffic is in the neighborhood of 15 to 25 million gross tons per year, we will use 132-lb. rail; for traffic in the range of 10 to 12 million gross tons, we will use 115-lb. rail; and that for traffic in the neighborhood of 6 to 8 million gross tons, we will use 100-lb. rail. We will understand that where fast passenger service predominates, some railroads may use 140-lb. rail, or even 155-lb. rail. These weights heavier than 132-lb. will usually be found where it is considered desirable because of conditions that impress the public. Some may disagree with my statement as to the economical weight of rail for a given amount of traffic, and I do not quarrel with that. However, I will settle right now for the weights given.

We all know that when the weight of rail comports with the amount of traffic, the cost of current maintenance is probably at a practical minimum. In some figures we made concerning weights of rail to use, we found the gross cost of laying 132-lb. rail to be about $34,000 per mile, and to lay 100-lb. rail, the gross cost to be about $6,000 less. If the traffic to be handled approximates 15 million gross tons, we reached the conclusion that the difference of $6,000 would be eaten up in less than four years in maintenance savings (ties, ballast and labor), after which the savings would continue.

Importance of Conservation

It is becoming more important that all track and bridge men, in fact all railroad men, be more observant and have more regard for matters which we must term "conservation." Some explanation of what I mean may be desirable here. When we remove rail from important lines, it certainly has considerable life for further service, and we will lay it in secondary lines or in yards. After culling out rails that are too badly worn or damaged, rail for relaying should be reconditioned by cropping.

straightening, and the building up of engine burns. Some railroads do this, but I have an impression that it is not a very wide practice. It is certainly conservation to recondition material as expensive as rail so that its service life will be extended, and the material made more satisfactory for maintenance and operation.

If we relay rail in its worn condition and with the same kinks and worn ends which required its removal in the first place, we are only transferring our maintenance expense from one place to another. Reconditioning rail, as meant here, calls for an expenditure in the neighborhood of $2.00 or less per rail. The cropped ends are desirable scrap and when sold will just about cover the cost of the reconditioning. I don't know how long reconditioned rail will last, but such treatment materially extends its life.

The "conservation" comes in the saving of steel. At the same time operating expense is lessened, and better track conditions result. Reconditioned rail is particularly good for heavy freight or secondary lines and for sidings. Whatever produces good results, and at the same time obviates large expenditures, will be to the liking of management, and that includes all of us; we are all "the management" in our particular sphere.

We use in the United Sttaes some 40 million crossties per year. We all know that the two principal things that bring about the removal of crossties are checking and splitting and mechanical wear. We expect to be able to prevent mechanical wear by the use of large tie plates securely fastened to the ties. Tie pads are coming into more general use, and we hope they will prove to be as beneficial as some now think. Tests are in progress everywhere and a great deal of the results are favorable.

The checking and splitting are something that we, as individuals, can do little about, although the industry can. We all like a treated red oak or black gum tie. They receive preservative treatment readily and are excellent at the time inserted. However, the hot sun and other weather conditions take their toll and bring about splitting and checking to such an extent that these conditions are responsible for a high proportion of ties removed. We have advocated "preservation of the naturally good physical properties of the timber" as well as preservation against decay. The latter is largely accomplished, but not much has been done about the former.

Expects Results from Research

A new treated tie is worth at least $5 in place, and maybe $6; hence it is incumbent on us to do everything we can to prolong the life of crossties. The need for timber conservation is another aspect of the same problem. There has been rapid depletion of our forests since 1940, resulting largely from the excessive use of wood products during World War II. We have been using timber products at a greater rate than regrowth in the forests. Chemical preservation of wood products has helped greatly to conserve our timber supply. A competent estimate I ran across time ago is that, through chemical preservation, we are saving every day 11½ million board-feet of otherwise doomed material. In other words preservation against decay is effective now and, I am sure, will be still more effective in the future.

A program of research and development relating to crossties is now in progress, which is being paid for in equal shares by the railroads, through the Association of American Railroads, and by the National Lumber Manufacturers' Association. Other research is in progress at treating plants in the South. One research project has to do with a process known as Vapor Drying, and is being conducted at the Taylor-Colquitt Company's treating plant at Spartanburg, S. C. We have a number of vapor-dried crossties in a test now a little over eight years old. The ties have passed through eight summers and eight winters, and the results as seen today give us encouragement because splits and checks are greatly minimized. This and other research projects now under way, together with that sponsored by the A.A.R. and the N.L.M.A., will produce very real results in the field of conservation. Through these studies, we confidently expect to find better means of preserving the natural physical properties of timbers out of which crossties are made.

Another problem of conservation, which is of a cruder nature but nonetheless real, has to do with ballast. Good ballast stone does not suffer greatly from wear and use, but it becomes dirty resulting in poor drainage. Usually, there is little the matter with the ballast except that it is dirty.

Hence, it can be reconditioned through cleaning with conventional machines. We find it cheaper to clean ballast than to shovel it down the fills. Many railroads clean ballast, but it is not by any means universal. This practice is merely another means in the direction of lower expense for materials and labor.

I cannot permit this opportunity to pass without putting in a "plug" for a more widespread adoption of the apprentice or trainee system in the maintenance-of-way departments. On the Southern system we made a modest beginning in the use of such a procedure in 1912 to 1915, skipped a few years of World War I and until about 1925, but since then we have followed the program with enthusiasm. As of now, we have in the neighborhood of 150 officers who have been through the training course. The group is made up of track supervisors, division engineers, chief engineers of maintenance, trainmasters, superintendents and general managers. About three-fourths of our division engineers and superintendents are products of it—and two of our general managers. Several presidents of railroads came out of the group.

The training plan centers largely in work in the track and bridge and building departments, but in addition there is reasonable training in other departments. The trainee thus has a means of learning something of how to receive freight and to account for it, something of station accounting, personnel work and investigations, car service and M.C.B. rules, and something of shop procedure and of freight solicitation. Our procedure is generally to employ engineering graduates who have an aptitude or a liking for railroad work, and then give them the training that we think will prepare them for future responsibilities. A number of railroads follow substantially the same procedure, but it is by no means general. The plan is working well and I commend it to you.

There is, perhaps, little doubt that all of us find ourselves reducing expenses by means of better practices such as the use of heavier rails, larger tie plates, and good-quality treated ties, and cleaning ballast, improving drainage, and doing things of that sort. The many and varied machines now in use for carrying out this work are of inestimable benefit, and we would not wish to do without them. The new tamping tools which will tamp up to ½ mile or more of track per day are doing a good job. Such mass-production equipment is now on our list of essential machines.

Better "Human Relations" Needed

I have read a good deal about "human relations" in industry, and recently bought a book to try to learn more about the subject. It brings up subjects that somehow have escaped me heretofore. It is said that, "while material efficiency has been increasing for 200 years, the

The Southern, says Mr. Akers, finds it "cheaper to clean ballast than to shovel it down the fills." Here is a crawler-mounted shoulder ballast cleaner at work

human capacity for working together has in the same period continually diminished." Think of that! It is also said that, "while we have been focusing our attention on the mechanical and technical aspects of industry, we have all but forgotten that industry is carried on by men and women, and that a business organization is a system of cooperative effort." These statements are found in a book by Burleigh B. Gardner and David G. Moore, which I find has a great deal of "meat" in it that should be useful to all of us.

A start toward better human relations in industry can be made by a study of a good book on the subject. Then we can try in our unsure way to apply some of the principles as best we can. Gradually we get a little into the atmosphere of it, and then the subject reaches our interest a little more. Next, we may sit at the feet of some of those who seem to have achieved some success along this line. If you would learn more about music, you would do so by placing yourself in its atmosphere. By all of this I do not mean at all that we must become slack in our requirements for good work; instead, we must find a means of accomplishing the work to better effect. All of us know men in supervisory capacities who seem to have a knack for getting jobs done irrespective of difficulties or hampering conditions. We can surely learn something from them.

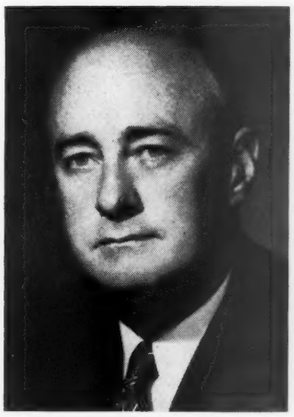
We have to work with each other, and have to establish that type of relationship with section forces, extra gangs and bridge gangs which will assure that their work will be accomplished in the best and most economical manner. Certain it is that the more we learn of human relations, the better we will serve our whole purpose. I sometimes wonder whether we are losing our close contact with what we call "the men." In our case, the production worker is the section laborer, the section foreman, the bridge laborer—people like that. The production worker soon learns what to expect from his supervisor and from those he calls the "big bosses." He learns at the same time what to expect from the officers of the brotherhood or union; gets to know what constitutes a "day's work" on his particular job, a piece of knowledge which may or may not comport with what you or I might consider a day's work.

Careful Analysis Needed

In other words, we have here a social system that is perhaps growing apart, or growing in diverging directions. Employee behavior (and that includes all of us) is not what it was only a few years ago. This thing that we call "human relations" seems to require that you and I carefully analyze the needs, the ways of behaving, the hopes, aspirations and expectations of our working population. We must study these things and, at the same time study and analyze the formal demands which our own industry makes upon its employees. A fairness of treatment must result, but at the same time the work must be done. The immediate purpose of such studies would be to improve the efficiency and the productivity of industrial and business organizations. Through a better knowledge of the diverging attitudes, we should be in better position to focus the efforts in the direction of improved service. The basic purpose of human relations is to develop and maintain the kind of industrial society which we, as citizens, desire to have, to improve the lot of our employees, and provide satisfactory ways of life for everybody.

I have, for a long time, felt that the conduct of any supervisory job includes two things: One is the ability and knowledge to do the work; the other an ability to get along with those with whom we deal—in other words, "human relations." I have thought that these two factors perhaps have equal weight. In our employment of student apprentices, and when they are first promoted to responsible positions, it is our custom to impress on them the need for fairness, for good human relations, as well as sound methods of doing the work.

Maybe we can all profit by some quiet thought along that line.



John W. Smith

Legh R. Powell, Jr.

J. W. Smith Succeeds L. R. Powell as Seaboard Air Line President

John W. Smith has been elected president of the Seaboard Air Line to succeed Legh R. Powell, Jr., who has become chairman of the board of directors.

Mr. Smith, born in Baltimore on July 20, 1900, was graduated from the University of Maryland in 1921 with a bachelor of science degree in civil engineering. He was employed as a building construction engineer by several firms during 1921-23 and as a junior engineer with the United States Coast & Geodetic Survey at San Francisco from August 1923 to March 1924. His railroad career began in April 1924 when he joined the Virginian as an engineer computer at Norfolk. In November of that year he joined the Seaboard—with which he has been associated ever since—as an engineer inspector at Norfolk.

In succession, Mr. Smith held the posts of assistant division engineer, Jacksonville, Fla.; chief clerk to engineer maintenance of way; assistant roadmaster; division engineer, first at Atlanta, Ga., and later at Savannah; supervisor, betterments and contracts; and trainmaster at Hamlet, N. C., and Richmond, Va. From September 1942 to June 1944 he was superintendent at Howells, Ga.

On the latter date he was appointed assistant chief engineer at Norfolk, holding that position until January 1946, when he became assistant general superintendent at Savannah. In August 1946 he returned to Norfolk as assistant to president, and he was elected vice-president (administration) in December 1950. It was this position he held when elected president.

An "Advanced Management" Student

Mr. Smith, a recent student in the Harvard Business School's Advanced Management Program, is said to be the second railroad officer to have taken the three-month course who has become president of his company. The first was H. J. McKenzie of the St. Louis Southwestern. The Advanced Management Program (*Railway Age*, April 9, 1951, page 38) is designed to equip already successful officers of business and industrial concerns with tested modern managerial techniques and knowledge thought most likely to improve executive performance. Several railroads have indicated their recognition of the value of such training by making arrangements so younger officers of promise can secure it.

Mr. Powell's Career

Mr. Powell, the Seaboard's new chairman, was born in Portsmouth, Va., on March 10, 1884, and entered railroad service in 1902 as a clerk in the office of the auditor of passenger accounts of the S.A.L. His entire business career has been spent as an employee of that railroad. In 1912 Mr. Powell was made assistant to comptroller and six years later he moved to Baltimore as auditor for the corporation during the period of federal control in World War I. After termination of federal control in 1920 he was appointed comptroller and in the following year he became vice-president. Elected president in 1927 he was, at 43, then the youngest president of any major railroad system in the country. During the company's receivership from 1930 to 1946 he served as receiver and chief executive officer. When reorganization was effected in the latter year Mr. Powell again was elected president, occupying that post until his election to the chairmanship.

The Seaboard Air Line Railroad Company, a name adopted in September 1945, was incorporated on June 26, 1944 as the Seaboard Railway Company, reorganization successor to the Seaboard Air Line Railway Company, which had entered receivership in December 1930 and the properties of which were acquired on August 1, 1946. It operates in Virginia, North Carolina, South Carolina, Georgia, Florida and Alabama. Mileage in operation at the end of 1950, the last full year for which statistics are available, totaled 4,146, including 263 miles of leased lines. At the end of 1927, mileage in operation aggregated 4,306, including 812 miles of leased lines. Through connection with Washington is made with the

Richmond, Fredericksburg & Potomac at Richmond, Va., and through passenger trains are operated to and from New York over that line and the Pennsylvania.

The Seaboard's operating revenues and expenses in 1927 were, respectively, $61,790,149 and $46,873,315, compared with $135,536,776 and $98,822,143 in 1950. The operating ratio in 1950 was 72.91, compared with 75.86 in 1927.

Freight revenue in 1927 was $46,431,657, compared with $109,874,986 in 1950. Products of mines (principally clay, gravel, sand, stone and phosphate) and forests over the years have accounted for most of the Seaboard's freight tonnage. In 1927, the tonnage of clay, gravel, sand and stone was 5,213,183, or 25.53 per cent of total tonnage, compared with 6,317,661 tons, or 15.9 per cent of the total, in 1950. Phosphate carried in the earlier year totaled 1,887,574 tons, or 9.24 per cent of the total, compared with 9,550,098 tons, or 24.04 per cent, in 1950. Total tonnage in 1950 amounted to 39,723,495, compared with 20,421,890 tons in 1927. The number of tons of freight carried one mile in 1950 was 8,262,712,964, compared with 3,391,223,902 in 1927.

Although the total number of passengers carried dropped from 2,322,485 in 1927 to 1,423,636 in 1950, total revenue from passengers increased from $6,714,727 to $14,026,545. The number of pasengers carried one mile in 1927 totaled 276,420,771, compared with 573,679,881 in 1950.

DeLuxe Coach Travel

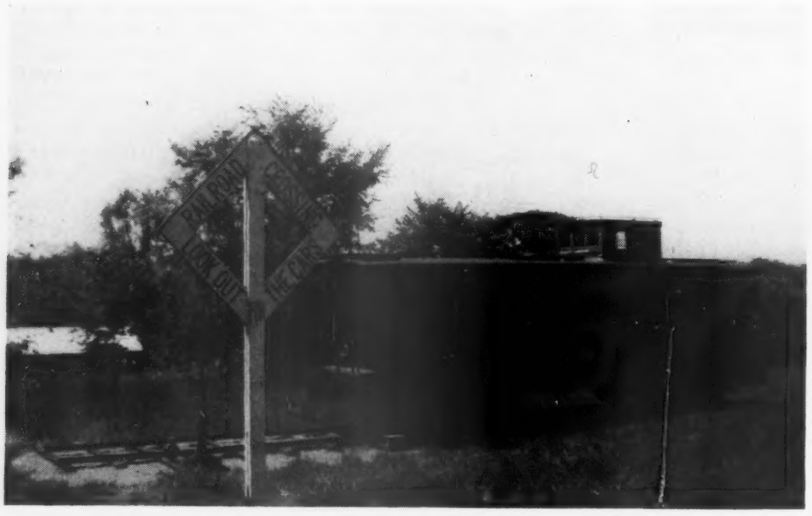
In 1938 the Seaboard management, convinced that potential travel volume justified operation between New York and Florida points of a fast, de luxe all-coach train, ordered from the Budd Company a 7-car train with 280 revenue seats. Within 48 hours of the time tickets were first placed on sale for the train—called the "Silver Meteor"—the road had received 2,300 applications for seats, according to a study made by Coverdale & Colpitts, consulting engineers. The inaugural run was on February 2, 1939. Requests for accommodations were so numerous that the number of cars in the train was increased gradually with daily service, instead of the original every-third-day departure from New York.

"When the question of installing streamline trains on the Seaboard was first broached," the previously mentioned report said, "there was no precedent in the Southeast from which to assess the value to the line of the new type of service. The road had been in receivership for a number of years . . . and the country was just emerging from the severest depression in its history. . . . Large sums of money were required to be spent on the line for improvements and betterments. . . . The Seaboard management became convinced that the expenditure incident to the installation of a trial train of this type was fully justified. The train was therefore purchased and placed in service. The wisdom of this action became apparent immediately, as the astonishing growth record . . . discloses. To our minds, the action of the Seaboard management . . . is an outstanding example of calculated business courage and foresight."

Diesel Program

The first Seaboard through train to be dieselized was the "Orange Blossom Special," with the opening of the winter season in December 1938. At the end of 1937 the road's equipment roster included 312 freight, 138 passenger and 92 switching locomotives, all steam. One year later the roster included nine 2,000-hp. diesel-electric units, which were used in sets of three to handle the "Orange Blossom Special" between Washington and Miami. Use of the diesel units, the Seaboard's annual report for 1938 said, "permitted a shortening of the schedule . . . and a highly satisfactory train performance. . . . The earnings of the 'East Coast Orange Blossom Special' have shown a very satisfactory increase, exceeding the estimates upon which the purchase of the diesel-electric locomotives was based." Motive power on hand at the end of 1950 included 280 steam locomotives and 348 diesel-electric units. Of the latter, 223 units were for freight, 63 for passenger and 62 for switching service.

In 1930, when the Seaboard entered receivership its fixed charges (including interest and rentals), totaled about $11,400,000, which it failed to earn by approximately $4,600,000. At the end of that year the road's unmatured funded debt was $177,024,214, including $50,588,254 of equipment obligations. Under the terms of the reorganization plan no provision was made for holders of the predecessor company's adjustment bonds, for unsecured claims not entitled to priority, or for its common and preferred stocks. Long term debt at the end of 1947, the first full year of post-reorganization operation, was $107,195,700, including $25,626,000 of equipment obligations. Fixed charges then totaled $2,025,167.



THE SHORTEST STANDARD GAGE RAILROAD IN VERMONT—and probably the shortest in the United States—is the Our Farm & St. Johnsbury, which consists of 60 feet of track on the farm owned by C. Howard Nash and his sister, Mrs. Margery Ludlow, at North Bennington, Vt. The O.F. & St. J.'s total equipment, one caboose, is shown, along with all of the road's trackage

Automatic Locking Hatch Cover

The outstanding characteristics of the eccentric actuated and automatic locking hatch cover for covered hopper cars is its safety of operation. Developed by the Youngstown Steel Door Company, Cleveland, its distinctive design positions the shaft and operating lever of each mechanism near the running board of the car roof.

Operation of the levers and the opening and closing of hatch covers compels the men to stand in proximity to the middle of the roof. In the event of accident, these men will be protected.

The hatch frames to which the covers are hinged are of conventional construction and carry the entire operating mechanism. On single units, embodying one cover, one frame, and one locking mechanism each, the unit is ready for service as soon as the frame is secured on the roof.

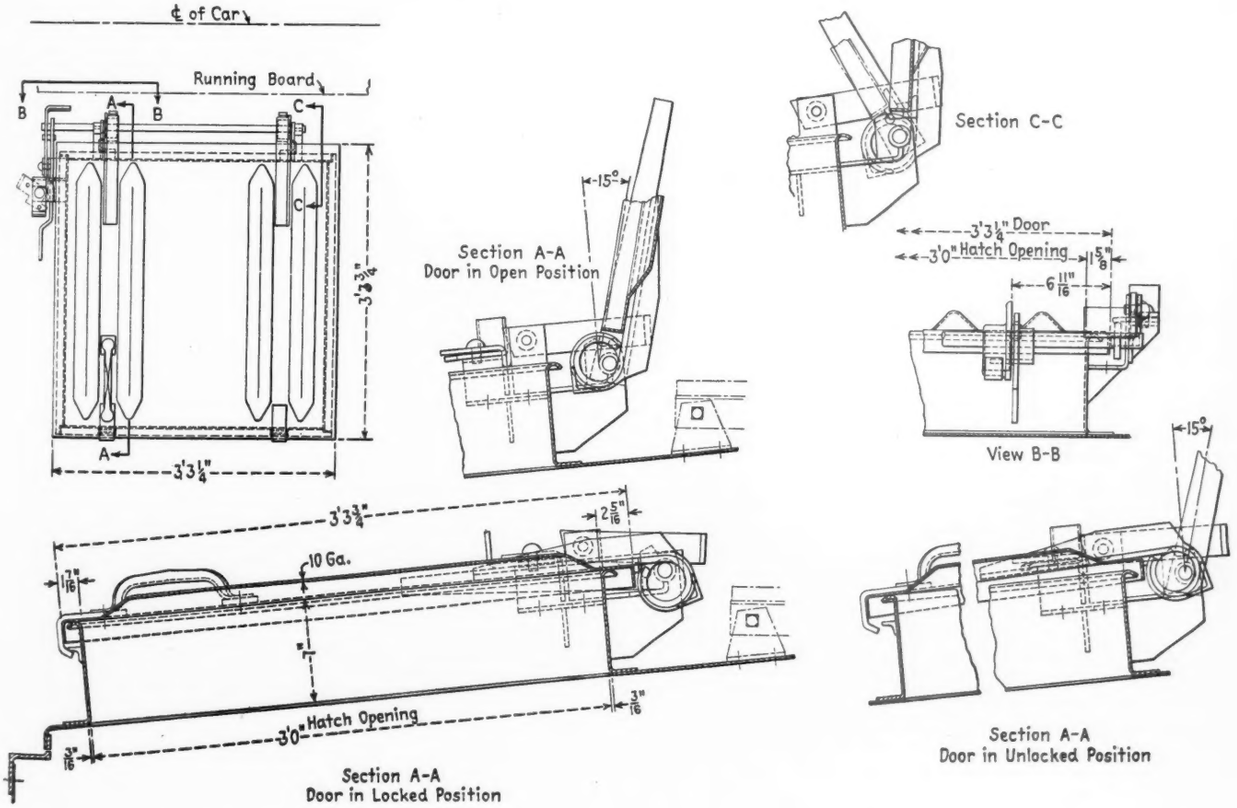
The cover is formed with a pair of corrugations extending parallel and adjacent to each side thereof. Hinges formed of rolled angle members are secured to the portion of the covers adjacent to the running boards. The hinge pins are cams eccentrically mounted on a shaft which rotates in butts carried by the hatch frame. The shaft is actuated by a lever. When the cover is closed, the lever is locked by a latch, also carried by the hatch frame, and can be sealed.

Locking members on the side of the cover opposite the hinges extend between the corrugations so that these serve to stiffen the covers and provide a tie between the hinges and the hook-shaped locking members. These lock by engaging angles on the hatch frame as the cover is seated. This is brought about by closing the cover, the hook-shaped members clearing the angles on the hatch frame because of the position of the eccentric hinge pin. Swinging the lever toward the roof after the covers have been lowered produces rotation of the shaft and eccentric hinge pin. This causes the cover to move on the frames toward the running board which engages the locking member over the angle and also lowers the hinge end of the cover upon the frame. The sealing contact between the cover and the hatch frame makes the device attractive to shippers of molding sand and cement.

To open the covers the lever is moved upward toward the running board and is automatically locked by a swinging latch. This moves the cover away from the running board and releases the lock so that the cover can be lifted to the open position.

It is said to be impossible to damage the covers or locking mechanism by improper operation. The lever cannot be swung through such an angle that it can be made to lie upon, or foul, the running board. Lowering the lever to the roof before the cover has been closed is also prevented by an interlocking engagement with the cover which also prevents the latter from being closed until the lever is returned to its fully open position.

The drawing illustrating the device shows a single latitudinally operated cover. The hatches can be arranged so that they open longitudinally parallel to the running board. In this case the operating lever is alongside the running board. Two latitudinally operated covers can also be arranged for dual operation. This involves connecting the two 1-in. shafts with a 1-in. pipe coupling and operating both with the lever device on one of the covers.



A Youngstown single latitudinally operated hatch cover which locks automatically

Letter from a Reader . . .

In Defense of The Belt Conveyor

AKRON 8, OHIO

TO THE EDITOR:

In your editorial of December 17, 1951, "Common Carrier Role Doesn't Get Talked About Enough," you urge more public appreciation of the role of the railroads as "common carriers" and quote from a speech by a railroad executive in which he attacked the Riverlake Belt Conveyor.

The essence of his talk and your editorial was that our conveyor would hold a discriminatory advantage over the railroads because it would be selective in its choice of commodities whereas the rails haul everything. Your editorial went on to urge railroad people to do more talking about this "unique readiness to serve all comers."

While I am in complete sympathy with and support the railroad case against subsidized competition, I do wonder whether you are doing the railroad fraternity a disservice in encouraging it to retard progress in transportation by advocating a "squatter's right" philosophy.

Certainly railroads today are beset with excessive regulation, the necessity for handling certain unprofitable business and in turn unfair subsidized competition. However, their "unique readiness to serve all comers" is a matter of their own choice. They are transporting only the commodities they have asked permission to handle through tariffs and/or charters.

It is commendable that a railroad trade journal should publicize the good points of the business of its supporters. However, only few outside the industry must subscribe to your "don't let the newcomer in" philosophy.

Despite the tremendous tonnages lost to the pipe lines, for example, are not the railroads farther ahead? We all know that the petroleum industry could not have had its growth without pipe line transportation. Geared to this has been the growth of the auto, steel, tire and the many allied industries. This whole scheme of things is a vital part of our country's low-cost, mass production and mass consumption technique.

While your editorial implies that the railroads are the only true common carriers because of the multiplicity of the things they carry, certainly you are aware that there are a number of common carries who handle only one or a very few products and that no common carrier can be required to handle any commodity beyond its physical ability or its original self limitations. The pipe lines serve as an example. Our rubber railroad will be another.

The railroad executive whom you quoted asked a hypothetical and obviously overdrawn question: "If a new form of transportation, handling only a few, selected kinds of freight, can weaken and perhaps destroy our basic transportation system, what kind of progress is that?" Transportation history will show the same words uttered by railroad executives when pipe lines, trucks, air lines and other new forms of transportation were introduced. Yet our railroads remain the backbone of the country's transportation system and will continue as such despite innovations like our belt conveyor, which will handle only a couple commodities but which will handle them more efficiently and economically.

Would not the railroads be better off today if they had recognized the advantages of pipe lines and other innovations and had incorporated them into their own operations? Likewise would it not be wiser for them today to review the logic of their stand against our rubber railroad? Can they build and maintain for long a fence around their business and exclude newcomers, as they have done successfully to date with our belt conveyor, and in turn be consistent with their espousal of the free enterprise system?

Many manufacturing concerns have been saved from going to seed by the production of products new to their respective industries to replace those which progress has overtaken. By such policies they have prospered. It is not too late for the railroads to capitalize on their transportation "know how" by doing the same. We do believe that railroads should not restrict themselves solely to rail transportation simply because they are railroads. We believe instead they should look for other ways of using their transportation knowledge and resources; they should attempt to join and let live rather than attempt to combat and destroy.

When the railroads oppose a privately financed enterprise such as Riverlake and in turn deprive the public of the advantages, is it not a fact that in so doing they are asking for the equivalent of the subsidy to other forms of transportation which they are now rightfully and so vigorously protesting?

V. H. JOHNSON
Vice-President
Riverlake Belt Conveyor Lines, Inc.

[This paper does not defend what Mr. Johnson calls "squatter's rights" in behalf of the railroads. It does question the economic advantage to the public at large in the proliferation of private or highly specialized transportation facilities, most of which are owned or controlled by big industries. Such facilities are invariably "pickers and choosers" of their traffic, and they always leave the unattractive traffic for the *bona fide* common carriers to handle. Railroads were discouraged by the regulators from making large-quantity rates, which would be economically justifiable and which would have forestalled much pipeline construction; and would have removed much of the economic incentive for the development of barge operations by large industries.

If and when (1) industries are forbidden to engage in transportation as railroads are forbidden to engage in industrial production, or (2) railroads are permitted to go into all other forms of transportation on exactly the same basis as others are permitted to engage in them and are permitted to eliminate unprofitable services and to make contract rates to meet actual or threatened competition without effect on their standard charges, then such objections to Mr. Johnson's "rubber railroad" as may have been implied in our defense of the position of the common carriers may be withdrawn.

Mr. Johnson says that the railroads' "unique readiness to serve all comers" is a matter of their own choice—as set forth in their charters and tariffs. There is a confusion of tenses here—it *was once* a matter of choice on the part of the railroads many decades ago, under entirely different circumstances, to offer services which they are not now usually permitted to shake off. Mr. Johnson wants the railroads to engage freely in other forms of transportation, but he knows as well as we do that they are not permitted to do so.

It is, in our opinion, solely because of the peculiar obligations for public service put upon the railroads and the peculiar regulatory impediments under which they suffer that the railroads have the moral and economic right, in the public interest, to oppose further erosion of their traffic by such specialized facilities as Mr. Johnson has in mind.

People who propose to relieve the railroads of any of their meager earnings, without first restoring complete freedom to them in pricing and service variations to meet competitive realities, are saying, in effect: *Go ahead and socialize the railroads.* We will not concede the public interest in bringing about that catastrophe nor in the provision of any facility —however superficially advantageous—which seems likely to push the railroads in that direction.—EDITOR]

GENERAL NEWS

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ending January 12 were announced by the Association of American Railroads on January 17 as follows:

	Surplus	Shortage
Plain Box	3,364	1,391
Auto Box	869	20
Total Box	4,233	1,411
Gondola	1,164	1,440
Hopper	800	833
Covered Hopper	360	9
Stock	2,499	44
Flat	648	208
Refrigerator	2,661	222
Other	252	97
Total	12,617	4,264

ANOTHER BLOOD DONOR CAR goes into service. This one, donated by the Southern Pacific, will tour western and southwestern states to obtain blood for both the armed forces and civilian transfusions. It will be operated under supervision of the Irwin Memorial Blood Bank of San Francisco in coordination with the American Red Cross and private, independent medically sponsored blood banks in communities throughout the road's territory. A. T. Mercier (wearing glasses), who retired from the presidency of the S.P. on December 31, is shown here turning the keys to the car over to officers of the blood bank

Plowman Resigns as Defense Traffic Consultant

E. G. Plowman, vice-president in charge of traffic of the United States Steel Corporation, has resigned as consultant, to the secretary of defense, on transportation and traffic management, and as advisor to the chairman of the Munitions Board on supply management. In his letter of resignation, Mr. Plowman recommended abolition of the position he held.

He based this recommendation on his appraisal of the present set-up, which includes the Defense Department's Military Traffic Service, the Munitions Board's reorganized office of Transportation, and the inter-agency coordination now provided by the Transportation and Storage Committee of the Office of Defense Mobilization.

Mr. Plowman served the government without compensation. Before assuming the position of consultant, he was director of the Military Traffic Service, which is now headed by Kenneth L. Vore.

Secretary of Defense Lovett accepted Mr. Plowman's resignation with "great reluctance," and expressed appreciation of his work in organizing M.T.S.

"Worst" Storm Halts Three Main Rail Routes

A severe rain and snowstorm—described as the worst since weather records have been kept—halted operations of the Southern Pacific's "Overland" route between San Francisco and Ogden, Utah, and trapped the westbound streamline "City of San Francisco" in historic Donner pass of the Sierra Nevada mountains. Rescue operations were hampered by blinding snow driven by winds which at times were reported to exceed 100 m.p.h. Snow reached a height of eight feet on level ground and drifts were reported more than 40 feet high.

The S. P. devoted its entire effort to reaching the trapped train. Snowplows were borrowed from neighboring divisions and relief trains followed them as plowing operations worked toward the train from both the west and the east. With help from the Army, Coast Guard, Navy, and numerous other agencies and individuals, the train's 200-odd passengers and crew members were safely brought to San Francisco on a special train early on the morning of January 17. They have been aboard the stalled train for three days and had been without heat for part of the time because all fuel in the diesel engines was consumed. Food supplies in the dining car permitted the serving of regular meals which wer hot because the supply of range fuel held out.

At *Railway Age* press time the train itself was still stranded in the pass and S.P. officers could not foretell when it would be freed. Meanwhile, Chicago-San Francisco services of the S.P. are being detoured. Rains, from the same storm, caused flooding on the road's coastal line between San Francisco and Los Angeles and on one occasion it was necessary to transfer passengers from the streamline "Daylight" to busses for the journey southward from Santa Barbara. The busses had to use secondary roads because main highways were likewise flooded.

The Western Pacific's main line has also been blocked in the Feather River canyon by the same storm. The W.P. reports that through service to Chicago has been detoured via Santa Fe and Union Pacific to a point near Salt Lake City but that the service is being maintained without use of "make-up" trains. The road's Reno branch and the Bieber route were also closed as of January 17. The road said that local service was conducted from Portola, Cal., east to Salt Lake City during the entire storm although daily press reports had stated that the town was "isolated."

Weather reports at press time for this issue indicated a second storm was headed for the same area, but that it was not expected to be too severe.

D.T.A. Appointments

Andrew F. Lane and Roland R. Monroe have been appointed directors, respectively, of the Port Utilization Division and the Street and Highway Transport Division of the Defense Transport Administration. Mr. Lane succeeded Elmo E. Ferrari and Mr. Monroe succeeded Edward D. Hicks, Jr.

Waterman Steamship Line Would Expand Operations

The Waterman Steamship Corporation has applied to the Interstate Commerce Commission for authority to handle general commodities in eastbound service from California ports to Atlantic ports north of Baltimore. Such ports include Philadelphia, New York, and Boston.

The company already holds operat-

ing rights for westbound traffic from these ports to points on the west coast. If the new authority is granted, the seamship line said it expects to handle about 128,000 net tons a year, with estimated revenues of $3,042,300.

ORGANIZATIONS

Large Exhibit Being Planned by N.R.A.A.

The 35th exhibition of the National Railway Appliances Association, which is to be held at the Coliseum, in Chicago, March 10-13, concurrently with the annual convention of the American Railway Engineering Association, promises to be one of the largest in the history of the association.

To date 114 manufacturers have contracted to occupy 261 booths. It is expected that by the time the exhibition opens all available space in the Coliseum will be used to exhibit tested and improved equipment, materials and devices designed to help railroad officers control present-day high costs and to overcome shortages of labor. While there will be primary emphasis in the exhibit on materials and appliances used by the track and bridge and building departments, it will also include equipment for handling fuel and lubricating oils, as well as many other items of interest to mechanical and purchases and stores officers.

Inquiries for information regarding the exhibit and space available should be addressed to Lewis Thomas, director of exhibits, National Railway Appliances Association, 59 East Van Buren street, Chicago.

The **Transportation Club** of the **Rochester Chamber of Commerce** will hold its 28th annual dinner at 6:30 p.m. on February 7, in the Chamber of Commerce banquet hall, Rochester, N. Y. Harold G. Hoffman, former governor of New Jersey, will be guest speaker. Edmund D. Katafiaz, traffic manager, Clapp's Baby Food division of American Home Foods, Inc., and vice-president of the club, will be toastmaster.

The **Traffic Club of New York** will hold its 42nd annual dinner at the Commodore Hotel on February 21.

The 31st annual dinner of the **Transportation Club of St. Paul** will be held on February 5 at the Lowry Hotel, St. Paul. General Robert E. Wood, chairman of the board of directors of Sears Roebuck & Co., will be the principal speaker. Vern G. Russell, assistant general freight agent of the Minneapolis & St. Louis, and president of the club, will preside.

The annual dinner of the **Hartford Transportation Club** will be held on February 14, in the Hotel Bond. Congressman A. A. Ribicoff, who has recently returned from an extended trip through Europe and the Middle East, will be the speaker. Arthur B. McGinley, sports editor and columnist of the Hartford Times, will be toastmaster, and J. J. Murphy, freight traffic manager of the New York, New Haven & Hartford, at New York, is chairman of the committee on arrangements.

Robert S. Macfarlane, president of the Northern Pacific, will be the guest speaker at the special events luncheon of the **Midwest Shippers Advisory Board** on January 31. The luncheon will be held in connection with the board's 28th annual and 97th regular meeting scheduled for the same day. The luncheon, to be held jointly with the **Traffic Club of Chicago,** will be held in the Grand Ballroom of the Sheraton Hotel.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

The **Transportation Corps** has ordered 2,000 box cars, 681 low-side gondola cars and 617 flat cars from the Pressed Steel Car Company. Rearrangement of the company's Mt. Vernon, Ill., plant will permit manufacture of these cars concurrently with cars for domestic railroads.

The **Transportation Corps** has awarded a contract to the Magor Car Corporation for construction of 965 high-side gondola cars, at a cost of $5,913 each.

LOCOMOTIVES

The **Transportation Corps** has awarded a contract to the Baldwin-Lima-Hamilton Corporation for 12 1,200-hp. diesel-electric locomotives at a cost of $107,538 each.

The **Transportation Corps** has requested bids on 68 diesel-electric locomotive units, 1,000 tank cars, and 119 railway trailer cars. Bids on locomotives and tank cars are due January 31, and on the trailer cars February 8.

Twenty-seven of the locomotive units are for domestic service, and 41 for foreign service. All 68 will be "56½-inch through 66-inch gage," 48-ton, 0-4-4-0 type.

The T.C. desires delivery of the 41 foreign service units on or before September 30, 1952. Of the 27 domestic units, delivery of 18 is desired on or before September 30; and the remaining nine on or before December 31, 1952.

The tank cars will be standard-gage, 10,000-gallon units, for domestic service. The army wants them completed before December 31, 1952. The trailer cars are described as 5-ton, 4-wheel, maintenance cars, standard-gage, for domestic service. Desired delivery date is on or before June 30, 1952.

PASSENGER CARS

The **Boston & Maine** has ordered three rail diesel cars from the Budd Company at an approximate cost of $499,000. It is expected the cars will be delivered in time to go into service with the change-of-time schedules next April 27. Two cars are of the RDC-1 type with a seating capacity of 89, and the third is an RDC-3 combination coach, baggage and mail car with a seating capacity of 49. The road intends to have one car in service between Boston and White River Junction, Vt., via Nashua, N. H., Manchester and Concord; one on the Fitchburg division between Boston and Troy, N. Y.; and one on the Springfield, Mass-White River Junction run. Studies are being continued to determine other parts of the B.&M. where this type of equipment can be used.

William Reid, president of the **Hudson & Manhattan,** announced in a report to the road's stockholders and employees on estimated results of the company's operations for 1951, that "the possibility of buying new cars is being explored so as to provide direct service between Newark [N.J.] and Hudson & Manhattan's uptown New York line, thus eliminating the present transfer of passengers at Journal Square station, Jersey City. If direct service is provided with new and modern cars, it is believed the resultant increased traffic will be enough to provide sufficient money to cover annual payments for this new equipment."

SIGNALING

The **Canadian National** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to add Zone 12 to the existing machine at the Montreal terminal interlocking. In addition to material required to make the necessary control machine changes, the order includes styles H-2 searchlight signals, M-3 electric switch machines, relays, rectifiers, transformers and housings. Field installation will be handled by railway forces.

The **Louisville & Nashville** has ordered equipment from the General Railway Signal Company for installation of a traffic control system from Calera, Ala., to Montgomery. The control machine, to be located at Birmingham, will have a 94-in. panel equipped with 51 track lights and 17 levers for control of 13 switch machines, 30 switch locks and 60 signals. Type SA searchlight signals, type K relays, and model 5D switch machines are included in this order.

The **Reading** has ordered equipment from the General Railway Signal

Company for installation of a remotely controlled interlocking at Mill Creek Junction, Pa. The control machine, to be located at Pottsville Junction, will have 10 track lights and 6 levers for control of 3 switch machines, 1 switch lock and 13 signals. Included in this order are model 5C switch machines and type G color-light signals.

SUPPLY TRADE

George W. Baughman, formerly assistant vice-president in charge of engineering for the **Union Switch & Signal Division** of **Westinghouse Air Brake Company,** has been elected vice-president in charge of engineering. **H. S. Loomis,** executive engineering officer of the division and vice-president of the company, has retired after 37 years' service, but will continue in a consulting capacity.

Mr. Loomis was born at Broadland, S. D., on November 14, 1886. He entered railroad service in 1904 as a draftsman in the motive power department of the Pennsylvania and obtained furloughs at various times to complete his schooling at Purdue University. He was graduated from that school in 1909,

H. S. Loomis

with a B.S. degree in electrical engineering. After his graduation, he continued with the Pennsylvania as an apprentice in the signal department, subsequently working as assistant signal inspector in 1912, at Philadelphia; later that year as assistant supervisor on the West Jersey & Seashore; and in 1913, as assistant supervisor of signals on the Philadelphia division. Mr. Loomis joined the engineering department of Union Switch & Signal in 1914 and in 1915 was placed in charge of the commercial engineering department. He was appointed assistant to the general manager in 1929 and was elected assistant general manager in 1936. In 1944 he was elected vice-president in charge of engineering.

A photograph and biographical sketch of Mr. Baughman appear on page 8 of this issue.

A general reorganization of sales territories and executive appointments has been announced by the **Lunkenheimer Company,** Cincinnati. Under the new arrangement, the United States will be divided into three Lunkenheimer sales areas — an Eastern division, under **Melvin W. Pauly,** sales manager; Central division, headed by **Harold H. Layritz,** sales manager;

J. A. Cuneo

Milo C. Roy

J. W. Wright

C. E. Dietle

Fairbanks, Morse & Co. has announced the following changes in its sales organization: J. A. Cuneo, formerly manager of the Chicago branch, has been promoted to general sales manager; Milo C. Roy, formerly manager of the Omaha branch, has been appointed manager of the Chicago branch; J. W. Wright, formerly manager of the Diesel Sales division, with headquarters in Chicago, has been appointed manager of the Omaha branch; C. E. Dietle, formerly diesel department manager of the Chicago branch, has been promoted to manager of the Diesel Sales division; W. B. Wylly, formerly manager of the Houston, Tex., subbranch, is now manager of the Atlanta branch; L. A. Weom, formerly St. Louis branch manager, has been transferred to St. Paul, where he assumed the duties of branch manager to succeed A. C. Thompson, who has retired after 45 years of service; and Clifford J. Schroeer, formerly diesel department manager of the St. Louis branch, has been promoted to manager of the branch to succeed Mr. Weom. It also was announced that H. L. Hilleary will continue as assistant sales manager

W. B. Wylly

L. A. Weom

Clifford J. Schroeer

Gene Thomas, who has been appointed district representative of the Frank G. Hough Company, Libertyville, Ill. He will work with Hough distributors in Washington, Oregon, Idaho, Montana and Wyoming

and Western division, directed by **Charles W. Burrage,** sales manager. **R. J. Sardieck,** with headquarters in Philadelphia, has been appointed district manager in the Eastern division; **E. R. Tieberman,** in Dallas, Tex., is district manager in the Central division; and **C. B. Rosser, Jr.,** district manager, will head the Western division, from Los Angeles.

William H. Clark has been appointed general purchasing agent of the **American Locomotive Company** to succeed **William K. Farrell,** retired. **James H. Link** has been named executive assistant to the president.

The **Trackson Company,** of Milwaukee, has become a wholly owned subsidiary of the **Caterpillar Tractor Company. Louis B. Neumiller,** president of Caterpillar, announced issuance of 54,000 shares of Caterpillar common stock in exchange for all Trackson's capital stock. Mr. Neumiller will be chairman of a reconstituted Trackson board of directors, which will include **Walter H. Stiemke,** Trackson president. **Henry Gotfredson,** secretary and treasurer of Trackson, will retire and be succeeded by **George L. Scripps,** who will relinquish his post as assistant treasurer of Caterpillar.

Clyde B. Colwell, Jr., has been appointed district manager for the Twin Cities (Minn.) district of the United States Steel Supply division of the **United States Steel Company.** He succeeds the late **John K. Rittenhouse.**

John W. Brophy has been appointed acting general manager of **General Motors Diesel, Ltd.,** London, Ont. He has been director of purchasing and production control for the company.

H. G. Mastin has been appointed assistant to the vice-president of the Eastern railroad division of the **Dearborn Chemical Company.** Mr. Mastin will be in charge of railroad sales and service in the New England area. **N. E. Cornell,** formerly with the New York Central, has joined Dearborn and will work with Mr. Mastin as a service engineer.

John Lund, formerly assistant district manager at Shreveport, La., for the **Air Reduction Magnolia Company,** a division of the **Air Reduction Company,** has been promoted to district manager, to succeed the late **Heber T. Wadley.**

Emory N. Mumma, district representative for the **Baker-Raulang Company,** at Philadelphia, has opened a branch office at 100 South Gay street, Baltimore. **Edward G. Matthew** is manager of the new office.

Fred P. Biggs has been elected a vice-president of the **American Brake Shoe Company.** He also is president of the company's Brake Shoe & Castings division. Mr. Biggs joined the company in 1916 and was designated vice-president in charge of sales for both Brake Shoe & Castings and Southern Wheel divisions in 1944. He was elected president of the Brake Shoe and Castings division in 1950.

Fred P. Biggs

Dean C. Webster has been appointed assistant vice-president of the **Standard Railway Equipment Manufacturing Company,** with headquarters in New York. He will have responsibility in Eastern and Southeastern districts for all mechanical and engineering matters dealing with Standard and its customers. Mr. Webster, assistant chief engineer since he joined Standard Railway in 1946, formerly was with the Pacific Fruit Express Company.

Dean C. Webster

Herbert W. Angell has been appointed technical director of the **American Lumber & Treating Co.,** Chicago. He will assume responsibility for management of its technical de-

W. W. Deal (left), Philadelphia district sales manager for the American Steel & Wire division of the United States Steel Company for the past 21 years, has been appointed manager of the New York district sales office, to replace the late W. E. Mackley. L. L. Anderson (right), assistant manager of sales at Philadelphia since 1937, has been promoted to manager. R. W. Drake, manager of sales at Wilkes-Barre, Pa., since 1947, has been transferred to Philadelphia as assistant manager of sales

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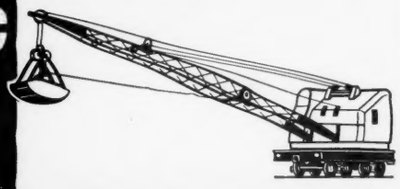

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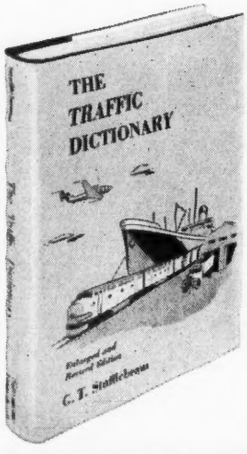

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partment, laboratory and licensee quality-control. Mr. Angell has been a member of the company's technical staff for the past 13 years.

Charles P. Moeller, assistant sales manager of the Weir Kilby division of the **Taylor-Wharton Iron & Steel Co.** since 1945, has been appointed sales manager of the trackwork division, with headquarters in the Cincinnati executive office. He will succeed **Ralph F. Gordon,** who has retired after 39 years of service. Mr. Moeller began his career in 1929 with the Cincinnati Frog & Switch Co., where he remained until 1931, when that company was acquired by the Weir Kilby Corporation. He worked several years with the Griffin Wheel Company and returned to the Weir Kilby division of Taylor-Wharton in 1945.

Charles P. Moeller

OBITUARY

Walter W. Colpitts, senior partner of Coverdale & Colpitts, consulting engineers, New York, died recently. He was 78 years old.

FINANCIAL

New Securities

Application has been filed with the I.C.C. by:

ILLINOIS CENTRAL.—To assume liability for $4,110,000 of series HH equipment trust certificates, to finance in part acquisition of 1,000 gondola cars. The cars, to be constructed in company shops at Centralia, Ill., will cost an estimated $5,500 each. The certificates would be dated February 1, and would mature in 30 semiannual installments of $137,000 each, beginning August 1, 1952. They would be sold by competitive bids, with the interest rate to be set by such bids.

NEW YORK CENTRAL.—To assume liability for $8,850,000 of equipment trust certificates to finance in part acquisition of 95 diesel-electric locomotive units, including 35 1,600-hp. road-switchers at an estimated unit cost of $165,000 and 43 1,000-hp. switchers at an estimated unit cost of $102,000 from the American Locomotive-General Electric Companies, and 17 1,200-hp. road-switchers at an estimated cost of $103,000 from Fairbanks, Morse & Co. The estimated total cost of the locomotives is $11,912,000. The certificates, dated February 1, would mature in 15 annual installments of $590,000 each, beginning February 1, 1953. They would be sold on the basis of competitive bids, and the interest rate would be fixed by such bids.

Division 4 of the I.C.C. has **authorized:**

CHICAGO, ROCK ISLAND & PACIFIC.—To assume liability for $4,950,000 of series L equipment trust certificates, to finance in part acquisition of 1,180 boxcars at an estimated cost of $6,614,381. *(Railway Age,* December 3, 1951, page 102.) Division 4 approved sale of the certificates for 99.417 with interest at 3 per cent—the bid of Salomon Bros. & Hutzler—which will make the average annual cost of the proceeds to the road approximately 3.09 per cent. The certificates, dated January 1, 1952, will mature in 30 semiannual installments of $165,000 each, beginning July 1, 1952. They were reoffered to the public at prices yielding from 2.15 to 3.15 per cent, according to maturity.

MISSOURI-KANSAS-TEXAS.—To assume liability for $3,300,000 of equipment trust certificates, to finance in part 32 diesel-electric locomotive units costing an estimated $4,241,378. *(Railway Age,* December 10, page 72.) Division 4 approved sale of the certificates for 98.555 with interest at 3⅛ per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds to the road approximately 3.36 per cent. The certificates, dated January 15, 1952, will mature in 30 semiannual installments of $110,000 each, beginning July 15, 1952. They were reoffered to the public at prices yielding from 2.25 to 3.375 per cent, according to maturity.

Dividends Declared

KANSAS CITY SOUTHERN.—4% non-cumulative preferred, $1, quarterly, payable January 15 to holders of record December 31, 1951.

SARATOGA & SCHENECTADY.—$2 (irregular), payable January 15 to holders of record January 2.

Security Price Averages

	Jan. 15	Prev. Week	Last Year
Average price of 20 representative railway stocks ..	55.11	55.22	58.37
Average price of 20 representative railway bonds...	91.13	91.52	99.56

RAILWAY OFFICERS

EXECUTIVE

Theodore Wright, who has been appointed assistant to the president of the SOUTHERN PACIFIC, joined the S.P. organization at Los Angeles in 1911 in a clerical position with the subsidiary Pacific Electric. After serving in World War I, he came to the S.P.'s general office in San Francisco in 1919, as secretary to the vice-president, and shortly afterward was named secretary to the president. Mr. Wright became office manager in the executive department in 1929, and assistant secretary of the company in 1944.

Theodore Wright

Alfred E. Perlman, general manager of the DENVER & RIO GRANDE WESTERN, has been appointed executive vice-president, succeeding **Edward A. West,** retired.

After graduating from Massachusetts Institute of Technology in 1923, Mr. Perlman started working for the Northern Pacific as a section hand. He held a number of jobs with that road being named roadmaster in 1927. In 1934 he was loaned by the railroad to make various studies for the Reconstruction Finance Corporation. He returned to railroad service with the Chicago, Burlington & Quincy in 1935 as assistant engineer, maintenance of way. He went to the Rio Grande in 1936 as engineer, maintenance of way, and, in 1941, became chief engineer. At that time he was also appointed assistant to the president of the affiliated Denver & Salt Lake. In 1948 he was named general manager of the D.&R.G.W.

Alfred E. Perlman

Mr. West started his railroad career in 1907 as a graduate-technical apprentice for the Boston Elevated. He held

Edward A. West

James P. Dervin has been elected traffic vice-president of the Rutland, to head the company's passenger and freight office which was opened on January 2 at 155 East 44th street, New York. This is the first time the Rutland has had a main office in New York. Mr. Dervin was formerly freight traffic manager of the New York Central for 10 years prior to his retirement in July 1950

a number of engineering positions with different electric railways and in 1918 became general superintendent of the Denver Tramway Corporation. In 1925 he was appointed vice-president and general manager of the Utah Light & Traction Co. In 1937 he joined the Rio Grande as general manager, being appointed vice-president and general manager in 1947. He was named executive vice-president in 1948.

H. J. Beem has retired from his position as vice-president and general manager of the NEVADA NORTHERN.

Harold E. Roll, general superintendent of the Western district of the MISSOURI PACIFIC, at Kansas City, Mo., has been appointed vice-president of the UNION TERMINAL (of St. Joseph, Mo.).

FINANCIAL, LEGAL & ACCOUNTING

W. J. Sullivan has been appointed assistant auditor of the MISSOURI PACIFIC, at St. Louis, succeeding **E. B. Leach,** retired.

C. G. Metzler has been appointed assistant general attorney of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Chicago. **M. E. Sharp** has also been appointed assistant general attorney at Seattle.

W. M. Burn has been appointed assistant general auditor of the GREAT NORTHERN, at St. Paul, succeeding **H. K. Dougan,** retired.

The industrial and the real estate and tax departments of the CHICAGO, ROCK ISLAND & PACIFIC have been consolidated and placed under the direction of **William E. Bolton,** asistant to the president. The law department of the road will continue to have direct supervision over tax matters.

W. E. Roberts has been appointed secretary and treasurer of the COLUMBUS & GREENVILLE, at Columbus, Miss., succeeding **George S. Gaines,** retired after 48 years of railroad service.

M. F. McNamara, assistant general claim agent for SOUTHERN PACIFIC LINES IN TEXAS AND LOUISIANA, has been appointed general claim agent, with headquarters at Houston, Tex. He succeeds **Chris Emmett,** who has retired.

Robert D. Brooks, assistant general solicitor of the NEW YORK CENTRAL, has been promoted to the new position of general attorney—commerce at New York.

OPERATING

Elgin Hicks, general superintendent of the UNION PACIFIC, at Portland, Ore., has been appointed general manager, Eastern district, with headquarters at Omaha. **G. A. Cunningham,** Utah division superintendent at Salt Lake City has been promoted to general superintendent at Cheyenne, Wyo., and is succeeded by **W. B. Groome. E. H. Bailey** has been transferred as general superintendent from Cheyenne to the same post at Portland. **C. C. Larkin** has been named Idaho division superintendent at Pocatello, Idaho, and **Arden Bybee** becomes assistant superintendent of the California division at Las Vegas, Nev. **E. M. Prouty** has been appointed assistant to vice-president of operations at Omaha, and **H. E. Shumway** has been appointed general superintendent of transportation at Omaha.

Elgin Hicks

Mr. Hicks' entire career has been with the U.P., starting in 1920 as a station helper. He rose through the ranks to become trainmaster in 1941, and assistant superintendent in 1942. In 1945 he was named superintendent, Nebraska division, and in 1947 became general superintendent, Eastern district, at Denver. In 1949 he was transferred to the Northwest district in the same capacity, remaining there until his present promotion.

Benjamin F. Nichols has been appointed communications traffic supervisor of the SOUTHERN at Chattanooga, Tenn.

Joseph W. Mannion, transportation inspector of the LEHIGH VALLEY, has been appointed car accountant at New York.

Ralph Johnson has been appointed assistant general manager of the Western district of the MISSOURI PACIFIC at Kansas City, Mo., succeeding to the duties of **Harold E. Roll,** who has been appointed vice-president of the UNION TERMINAL (of St. Joseph, Mo.) **E. C. Sheffield** has been appointed assistant general manager, Texas and Louisiana Lines, and superintendent transportation, INTERNATIONAL-GREAT NORTHERN, at Palestine, Tex., succeeding Mr. Johnson. **N. N. Hopkins,** assistant superintendent of the Colorado division at Pueblo, Colo., moves to Kansas City as superintendent of the Eastern division, succeeding **Marvin L. Smith,** who has been promoted to assistant general superintendent of transportation at St. Louis. **Dale E. Walker** succeeds Mr. Hopkins at Pueblo. **W. H. Bailey,** superintendent of safety, has been transferred to Falls City, Neb., as superintendent of the Omaha and Northern Kansas divisions, succeeding **Walter Wicker,** appointed acting assistant superintendent of the Joplin and White River divisions at Nevada, Mo.

Samuel Hammer, general superintendent of the Southern district at Little Rock, Ark., has been promoted to general manager of the GULF COAST LINES and INTERNATIONAL-GREAT NORTHERN. **Robert C. Williams,** superintendent of the Arkansas division at Little Rock, has been appointed assistant general manager of the Southern district. **John W. Treadwell,** superintendent of the Little Rock and Louisiana divisions, succeeds Mr. Williams. **Gerald M. Holzmann,** assistant superintendent of the DeQuincy division, succeeds Mr. Treadwell, and is in turn succeeded by **D. T. Barksdale.**

Claude C. Courtway, assistant superintendent of the Joplin and White River divisions, has been promoted to the superintendency of the Missouri and Memphis divisions at Poplar Bluff, Mo., succeeding **V. A. Gordon,** transferred to Palestine as superintendent of the San Antonio and Palestine divisions. **A. B. Kelly,** general manager of the Texas and Louisiana lines, has retired after 51 years of service.

The following have been appointed trainmasters: **M. H. Cunningham,** at DeQuincy, La., succeeding **G. D. Richey,** transferred to Harlingen, Tex.; **C. R. Dodson,** at Hoisington, Kan., succeeding **F. Sparks,** transferred to

Concordia, Kan.; **F. R. Malott,** at Osawatomie, Kan., succeeding **J. J. McQuade,** assigned to other duties; and **J. G. Sheppard,** at Poplar Bluff.

A. D. Hanson, general superintendent of transportation of the UNION PACIFIC, at Omaha, has been appointed general manager of the South-Central district at Salt Lake City. He succeeds **F. C. Paulsen,** retired.

Mr. Hanson joined the U.P. in 1917 as a stenographer at North Platte, Neb.

A. D. Hanson

Leaving there in 1926 after holding a series of operating department jobs, he spent years in Cheyenne and Green River, Wyo. In 1933, he was granted leave of absence to act as secretary for Wyoming's governor. Upon returning to the U.P. in 1935, Mr. Hanson was secretary to the vice-president—operations at Omaha, after which he served at Los Angeles as chief clerk

F. C. Paulsen

to the executive assistant. H was transferred to Omaha in 1942 as assistant to the general manager, and to Salt Lake City in 1946 as general superintendent of the Idaho division and of the Utah division north of Salt Lake City. He returned to Omaha in 1947 as general superintendent of transportation.

Mr. Paulsen entered U.P. service as a shop messenger in 1903, and, after serving in World War I, returned to the company as a roadmaster at Green River. He was subsequently division engineer at Cheyenne, assistant superintendent at Omaha, North Platte and Pocatello, and superintendent and general superintendent at Pocatello. He was assistant general manager and general manager at Salt Lake City in 1941 and general manager at Omaha from 1941 to 1944, when he returned to Salt Lake City.

N. J. Evans, division superintendent of the NEW YORK CENTRAL, has been appointed terminal superintendent of the Syracuse-Rochester division, with headquarters as before at Rochester, N.Y.

Harold J. Slavin, chief supervisor of freight service of the NEW YORK CENTRAL, has been appointed superintendent of freight service, with headquarters as before at New York, succeeding **Sanford H. Keyes,** appointed research engineer.

F. M. Crump has been appointed trainmaster at the San Antonio terminal of the MISSOURI PACIFIC, succeeding **H. P. Holzmann,** retired.

W. R. Armstrong, chief engineer of the NEVADA NORTHERN, has been appointed superintendent and chief engineer, with headquarters at East Ely, Nev. **H. M. Peterson** has been appointed general superintendent in charge of operations. The position of vice-president and general manager has been abolished.

K. L. Moriarty, assistant general manager of the DENVER & RIO GRANDE WESTERN, has been appointed general manager, with headquarters as before at Denver, succeeding **Alfred E. Perlman,** appointed executive vice-president. A photograph and biography of Mr. Moriarty were published in *Railway Age* April 16, 1951, page 78.

Oliver P. Dowling, Jr., superintendent of terminals of the ATLANTIC COAST LINE at Richmond, Va., has been appointed acting superintendent of the Charleston district at Charleston, S. C., succeeding **George W. Svoboda,** who has been recalled to active military service at Fort Belvoir, Va.

R. L. Sahm, trainmaster of the NEW YORK CENTRAL at New York, has been appointed assistant superintendent of the St. Lawrence, Ottawa and Adirondack divisions at Watertown, N. Y. **J. M. Loconto,** trainmaster at Weehawken, N. J., has been transferred to the Electric, Harlem and Putnam divisions. **F. I. Doebber,** trainmaster at Buffalo, has been transferred to the Hudson and Mohawk divisions. **M. T. Buerger** and **R. L. Gill** have been appointed trainmasters of the Buffalo and River divisions, respectively.

TRAFFIC

A. G. Hilker, general passenger agent of the UNION PACIFIC, at Omaha, has been appointed passenger traffic manager at the same point. He is succeeded by **R. B. Johnson,** assistant general passenger agent at Los Angeles. **I. D. Kessler,** manager of the Union Pacific-Chicago & North Western department of tours at Chicago, has been appointed assistant passenger traffic manager in charge of solicitation.

Mr. Hilker joined the U.P. at Omaha in 1914 as a passenger traffic department office boy. He advanced through a number of clerical positions until 1942 when he was named assistant to the general passenger traffic manager. He was promoted to assistant general passenger agent in 1943 and to general passenger agent in 1945.

A. G. Hilker

Mr. Johnson entered U.P. service in 1922 at Omaha in the accounting department. He became a ticket seller in 1927, holding several positions at Omaha, including rate clerk, depot passenger agent, ticket agent, traveling passenger agent, city passenger agent and special representative in charge of military movements. He was transferred to Los Angeles in 1946 as assistant general passenger agent.

Joining the U.P. at Potter, Neb., in 1923 as a station helper, Mr. Kessler filled various clerical and passenger department positions in Nebraska and Wyoming until 1933 when he was named passenger agent at Chicago. He was promoted to traveling passenger agent there in 1937 and was later made manager of the department of tours.

James R. Getty, passenger traffic manager of the SEABOARD AIR LINE, in charge of sales and service, has been named general passenger traffic manager, with headquarters remaining in Norfolk, Va., succeeding **C. E. Bell,** whose election as a vice-president of the S.A.L. was reported in *Railway Age* December 24, 1951, page 46. Mr. Getty attended the University of Pennsylvania and entered the transportation field with the American Express Company, for which he worked at Chicago, San Diego and Philadelphia. In 1936 he joined the Pennsylvania at Wilmington, Del., and became associated with the S.A.L. as traveling passenger agent at Philadelphia in December 1937. He

was promoted to district passenger agent at Philadelphia in 1940 and the following year transferred to Miami, Fla. In 1943 he was appointed general passenger agent at Miami and in 1947

James R. Getty

became assistant to the passenger traffic manager at Norfolk. Mr. Getty was named passenger traffic manager in charge of sales and service of the system in February 1949.

Philip L. Johnson, general agent, freight department of the WABASH, at Houston, Tex., has been appointed central traffic manager at Chicago. He is succeeded by **William L. Knipe,** perishable freight agent at Harlingen, Tex. **T. H. Johnston** succeeds Mr. Knipe. **J. W. Points** has been appointed general agent at Portland, Ore., succeeding **R. D. Farrell,** retired. **J. W. Wack** has been appointed general freight agent at Chicago, his former title, assistant general freight agent, being abolished. **R. A. Walton,** assistant freight traffic manager at Chicago, has retired after 48 years of railroad service.

Mr. Johnson entered railroad service as a clerk for the Houston Belt & Terminal in 1921. He came to the Wabash as traveling freight agent in 1924, and has been general agent since 1931.

Mr. Walton started with the Chesapeake & Ohio in 1903 as a stenographer in the passenger department. After serving a number of railroads, he joined the Wabash in 1912 as chief clerk in the freight department. He became general agent in the freight and passenger department in 1921, and in 1925 was appointed assistant general freight agent at Chicago. Since 1928 Mr. Walton has served as assistant freight traffic manager at the same point.

The CHICAGO, ROCK ISLAND & PACIFIC has announced formation of two new freight traffic districts and promotion of four traffic officers. **C. A. Cromwell,** general eastern freight agent, has been named to head the new eastern district as eastern freight traffic manager, with headquarters as before at New York. He is succeeded by **A. J. Ferrell,** assistant general freight agent at Oklahoma City, where the other new district, the southwestern, has its headquarters. **G. W. Stewart,** general freight agent at Kansas City, Kan., has been appointed to head this district, retaining his previous title. Both Mr. Cromwell and Mr. Stewart report directly to **E. Rigg,** vice-president, freight traffic, at Chicago, **R. T. MacPherson,** assistant general agent in New York, becomes general agent at that point. The eastern district includes, generally, the north Atlantic seaboard territory, while the southwestern district covers all of Oklahoma and the Panhandle of Texas.

Mr. Cromwell joined the Rock Island in 1920 as a traveling freight and passenger agent at Philadelphia. He had previously been with the Great Northern, where he started in 1911 as clerk-stenographer. He served overseas in World War I with engineering and transportation forces. In 1940 Mr. Cromwell was promoted from traveling freight agent at Philadelphia to general agent at Washington, D. C., and in 1944 became general eastern freight agent at New York.

Mr. Stewart started with the railroad in 1922 as an office boy in Chicago. A year later he became a clerk in the freight traffic department and by 1929 had become rate clerk. Three years later he was appointed city freight at Detroit, and in 1936 was promoted to general agent there. Mr. Stewart became general eastern freight agent in New York in 1942, leaving there in 1942 to become general freight agent at Kansas City.

Mr. Ferrell joined the company as city freight agent in Houston, Tex., in 1937. He later became foreign freight agent at Houston and in 1946 was promoted to foreign freight traffic manager in Chicago. He has been in Oklahoma City since June 1951 as assistant general freight agent.

MECHANICAL

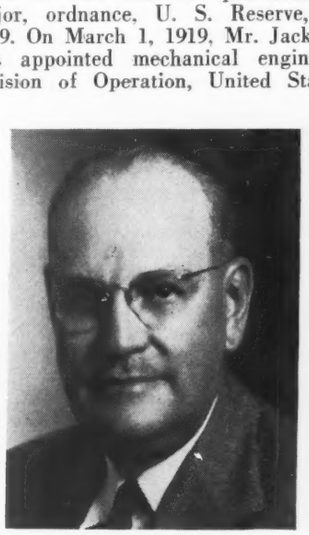
Effective January 1, **W. M. Keller,** assistant mechanical engineer of the PENNSYLVANIA, was appointed director of mechanical research of the Mechanical Division of the ASSOCIATION OF AMERICAN RAILROADS, in place of **J. R. Jackson,** retired, who has directed most of this work since 1946 under the general title of mechanical engineer. Mr. Keller will have jurisdiction over all phases of research conducted by the Mechanical Division, including refrigerator car tests and studies. His headquarters will be in Chicago.

Mr. Keller was born on August 29, 1901, in Pittsburgh. He studied engineering at the University of Pittsburgh from 1924 to 1926 and obtained the degree of M.E. at Pennsylvania State College in 1932. He entered the employ of the Pennsylvania at its Altoona Works in September 1919 as an apprentice. In 1926 he became inspector, in 1938, coal inspector, and in 1939, assistant engineer, all in the test department; in 1941, foreman, mechanical engineer; and in 1944, general foreman, car design. On November 1, 1947, he was appointed assistant mechanical engineer. Mr. Keller has served on the Sub-Committee on Refrigerator Car Design of the Mechanical Division, A.A.R.

Mr. Jackson, born on May 5, 1886, in Ft. Wayne, Ind., was educated at Purdue University (B.S. in M.E., 1910; M.E., 1915). He began his railroad career on the Pennsylvania at Ft. Wayne, serving as a machinist apprentice from 1903 until 1906 and during the summers of 1907-09. From June 1910 until 1917 he was in the test and

W. M. Keller

inspection department of the Santa Fe where he subsequently served as assistant engineer of tests. He was commissioned a captain in the U. S. Reserve in 1917 and was promoted to major, ordnance, U. S. Reserve, in 1919. On March 1, 1919, Mr. Jackson was appointed mechanical engineer, Division of Operation, United States



J. R. Jackson

Railroad Administration, at Washington, D. C. In 1920 he became associated with the Lewis Engineering Company, Chicago and Toronto, as mechanical engineer, being later appointed chief engineer. He became a co-partner of Pioneer Precooling Plants at Lodi and Napa, Cal., in 1923; on July 1, 1925, engineer of tests of the

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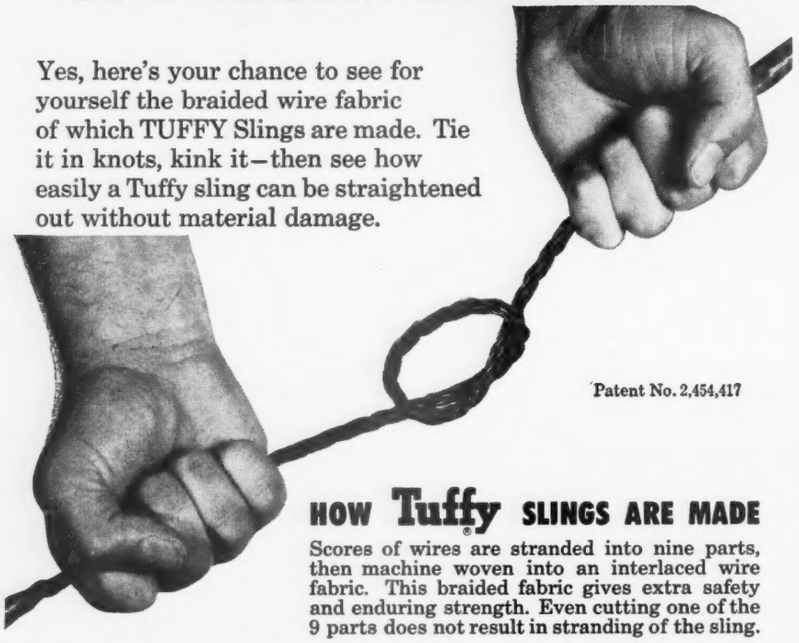

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Missouri Pacific, and on September 1, 1946, mechanical engineer of the Mechanical Division, A.A.R.

Mr. Jackson has been active both in railroad associations and technical societies, having served as member and chairman of numerous committees in the American Society of Testing Materials, A.A.R., Railway Fuel and Traveling Engineers' Association (of which he was president in 1929) and American Society of Mechanical Engineers, Railroad Division (of which he was chairman in 1943).

Arthur Selbee has been appointed general superintendent of motive power and car equipment of the GRAND TRUNK WESTERN at Battle Creek, Mich., to succeed **W. C. Bowra,** who has been promoted to general superintendent motive power and car equipment, Central region, of the CANADIAN NATIONAL, at Toronto. Beginning his career as a machinist apprentice in the G.T.W.'s Battle Creek shops in 1910,

Arthur Selbee

Mr. Selbee was promoted through various positions in the car shops and became an engine inspector in 1920. After several other promotions, was named machine shop foreman in 1937 and seven years later became erecting shop foreman. In 1947, Mr. Selbee was appointed superintendent of the Battle Creek shops, and since 1948 has been superintendent of motive power and car equipment of the Central Vermont, at St. Albans, Vt.

Harrison L. Price, superintendent of shops of the ATCHISON, TOPEKA & SANTA FE, at Albuquerque, N. M., has has been appointed mechanical assistant at Chicago. He succeeds **Ralph D. Bryan,** retired. **D. J. Everett,** master mechanic at Galveston, Tex., succeeds Mr. Price at Albuquerque. Mr. Everett is succeeded by **L. L. Luthey,** general supervisor of diesel engines at Chicago, who in turn is succeeded by **J. W. Luke,** day diesel roundhouse foreman at Argentine, Kan.

Mr. Price entered Santa Fe service as a machinist apprentice at Topeka, Kans., in 1916. He held the positions of clerk, machinist, engine inspector, apprentice instructor, welder, test de-

partment assistant, car gang foreman, airbrake foreman, and acting superintendent of Chicago car works, and was appointed superintendent Chicago car works in 1941. He was appointed master mechanic at Chanute, Kan., in 1943, and in April of that year transferred to Chicago in the same position, where he served until 1949, when he was promoted to superintendent of shops at Albuquerque.

Mr. Bryan entered Santa Fe service in 1905 at Argentine as a laborer and the same year was appointed car clerk. After serving as bonus clerk and assistant car foreman, in 1915 he was appointed general car foreman at Arkansas City, Kan. He served in various other positions until 1937, when he was appointed assistant superintendent, car department, at San Bernardino, Cal. In 1939 he was transferred to Topeka as acting engineer of car construction, was appointed engineer car construction there in 1942 and in the same year was promoted to mechanical assistant, which position he held until his retirement.

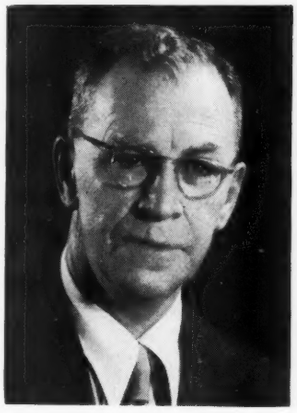
Effective January 1, **S. W. Marras,** junior engineering aid, electrical department, ILLINOIS CENTRAL, was appointed secretary of the recently combined Electrical Sections of the Engineering and Mechanical Divisions of the ASSOCIATION OF AMERICAN RAILROADS. Mr. Marras' headquarters will be in Chicago.

PURCHASES & STORES

T. A. Donovan, assistant to general purchasing agent of the CANADIAN PACIFIC, has been appointed assistant general purchasing agent, with headquarters as before at Montreal, succeeding **W. J. Burns,** who retired on December 31, 1951, under the pension rules of the company, after more than 47 years of service. **W. W. Lummis** has been appointed assistant to general purchasing agent at Montreal. **B. T. McDonough** has been appointed purchasing agent at Victoria, B. C., succeeding **J. Arnott,** who has been transferred to Winnipeg, to replace **E. C. P. Cushing,** who retired on December 31, under the pension rules of the company, after more than 49 years of service. **T. A. Quirk** and **J. R. Sproson** have been appointed purchasing agent and assistant purchasing agent, respectively, at Montreal.

Mr. Donovan was born at Canterbury, N. B., on August 3, 1897, and attended St. Joseph's College at Memramcook, N. B. He entered railroad service in August 1912 in the purchasing department of the C.P. at Calgary and was appointed chief clerk, purchasing department, at Montreal in October 1928. Mr. Donovan became purchasing agent at St. John, N. B., in November 1930, transferring to Toronto in November 1939 and to Calgary on January 1, 1947. On May 1, 1950, he was appointed assistant to general purchasing agent at Montreal.

Mr. Burns was born at Maitland, Ont., and joined the C.P. in 1904 in the car department at Angus shops, Montreal, where he served in various posts until 1915. After serving in the



T. A. Donovan

chief mechanical engineer's office and as chief clerk in the car department, he transferred to the purchasing department in 1917 and was promoted to chief clerk at Vancouver, B. C., in 1918. Mr. Burns was appointed assistant purchasing agent at Montreal in 1928, purchasing agent in 1940, assistant to general purchasing agent in 1941 and assistant general purchasing agent in 1943.

T. A. Quirk

Mr. Cushing started with the C.P. in 1902 as a clerk, and has been with it since. He held a number of clerical positions until 1919, when he was appointed purchasing agent at Calgary. In 1928 he was transferred to Vancouver in the same capacity, and since 1935 has been purchasing agent at Winnipeg.

Mr. Quirk joined the C.P. at Montreal in 1918 and was appointed chief clerk at Toronto in 1929, after serving in various clerical capacities there. Returning to Montreal in 1936, he became assistant purchasing agent in 1943, which position he held until his recent appointment as purchasing agent.

Mr. Sproson entered the service of the C.P. in 1930 at Montreal. He was appointed chief clerk in the purchasing department at Winnipeg early in 1950 and in November 1950 became acting assistant purchasing agent there. He returned to Montreal in April 1951 and two months later was appointed supervisor of priorities, the position he held until his recent appointment as assistant purchasing agent at Montreal.

William J. Warnock, assistant general purchasing agent of the NEW YORK CENTRAL SYSTEM at New York, retired on December 31, 1951, after more than 52 years of railroad service. Mr. Warnock was born at Tuckahoe, N. Y., in 1884 and joined the N.Y.C. in September 1899 as a messenger in the Mott Haven car shops. Four years later he became storekeeper at the shops and in 1908 transferred to Grand Central Terminal in a clerical capacity in the purchasing department. Mr. Warnock became scrap sales agent in 1920, assistant purchasing agent in 1931 and assistant general purchasing agent in 1944.

ENGINEERING AND SIGNALING

M. R. Beamer has been appointed superintendent of communications of the TEXAS & PACIFIC at Dallas, Tex., succeeding **W. A. Roberts,** retired. The position of superintendent telegraph has been abolished.

W. B. Mackenzie, maintenance bridge engineer of the ST. LOUIS-SAN FRANCISCO, has been appointed bridge engineer, with headquarters at Springfield, Mo. He succeeds **R. B. Hennessy,** retired after 42 years of service.

OBITUARY

William D. Beck, who retired as district manager of the Car Service Division of the ASSOCIATION OF AMERICAN RAILROADS on March 1, 1944, died December 20 at his home in Evanston, Ill.

Howard W. Van Meter, assistant auditor of disbursements of the CHICAGO & NORTH WESTERN, died January 7 in his office in Chicago.

Pliny L. Solether, vice-president of the DULUTH, SOUTH SHORE & ATLANTIC, died on January 2, at his home in Minneapolis. Mr. Solether was engaged in private law practice from 1913 until 1942 with the firm of Keyes, Pardee, Solether & Carr. In 1943 he was appointed co-trustee and counsel for the trustees of the Duluth, South Shore & Atlantic Railway Company and the Mineral Range Railroad Company, which were undergoing reorganization. In 1949, when the companies were merged into the Duluth, South Shore & Atlantic Railroad Company, Mr. Solether was elected vice-president.

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Current Publications

PERIODICAL ARTICLES

Casey Jones Goes Down to Sea, by Harrison H. Hance. Westward, November 1951, pp. 28-33. Kaiser Steel Corporation, 1924 Broadway, Oakland 12, Cal.

An account of the marine operations of the Atchison, Topeka & Sante Fe in and around San Francisco bay.

General Dodge Centennial Edition. News Issue of the Norwich University Record, November 2, 1951. Norwich University, Northfield, Vt.

Grenville M. Dodge, well-known railroad engineer, was graduated from Norwich University in 1851, and on October 6, 1951, a celebration was held to commemorate the event. This issue of the Norwich University Record includes press reports of the event, letters received from prominent people, addresses delivered at the celebration and accounts of the pageant and the parade. (*Railway Age*, September 24, page 67, and October 29, page 12.)

CPR's Dominion. Forbes Magazine, November 15, 1951, pp. 19-22. B. C. Forbes & Sons Publishing Co., 80 Fifth ave., New York 11. Single copies, 25 cents.

Discusses the Canadian Pacific's far-flung activities, its past and present management, and its potentialities in Canada's wildfire oil and metals boom.

Monorail . . . A Defense Weapon?, by Anson S. Bilger. National Defense Transportation Journal, November-December 1951, pp. 12-14. National Defense Transportation Association, 930 F. st., N. W., Washington 4, D. C. Single copies, $1.

Mr. Bilger, who is president of the General Monorail Corporation, discusses the advantages of a monorail system in supplying our fighting men.

Fine Way to Run a Railroad!, by Frank J. Taylor. Saturday Evening Post, December 22, 1951, pp. 26-27 and 44-45. Curtis Publishing Company, Independence sq., Philadelphia 5, Pa. Single copies, 15 cents.

Push button railroading on the Southern Pacific is enabling freight trains to roll on passenger train schedules with greater efficiency and safety of operation, according to this article, which goes on to explain that this has been accomplished through introduction of an array of electronic devices, including an "eye" that sees over humps and around curves. Mr. Taylor describes the use of radio telephone in yard operation and on the road. Other electronic operations are employed in checking number of freight cars, facilitating the supervision of cutting cars and making up new trains, inspecting equipment in yards, and checking locations of power line breaks.

FILMS

Along the Right of Way. 16 mm., sound, color. 21 min. Film Bureau, Model Railroader Magazine, 1027 North Seventh st., Milwaukee 3, Wis. Available for transportation costs.

This film describes the hobby of model railroading, shows how men first become interested, and traces the progress of a typical model railroad hobbyist from interested onlooker to owner and operator of a model railroad "empire." It depicts the growth of the hobby from less than 4,000 hobbyists in 1935 to over 200,000 today. Other scenes show the many types of locomotives and rolling stock manufactured for hobbyists, and action shots of model railroad activity on club and private layouts.

Straight from the Horse's Mouth, by Samuel N. Morrison. National Foremen's Institute, Inc., New London, Conn. Full program, including film and record, conference leader's outline, and 25 pamphlets for distribution, $69.50.

This new sound filmstrip and record program is for supervisory training in industry and schools. The program, which can be shown on any sound slide equipment, concerns itself with one of the great problems of management, "motivation," or how supervision can get employees to do what management wants them to do. It is the first film in a planned series, "Skill in Handling People," resulting from actual field research and the answers to questionnaires circulated to industry. Additional information about the program may be secured from James F. Mathias, sales promotion director of the institu[illegible]

PAMPHLETS

General Rail and Rail-Water Freight Rate Changes. Supplement Covering Interim Increases Made Effective Generally on April 4, 1951, and the Further Increases Effective Generally on August 28, 1951, pursuant to the Findings in Ex Parte No. 175. Interstate Commerce Commission, Bureau of Traffic, Washington 25, D. C. Free.

This supplement brings up to date the original publication which covered general rail and rail-water freight rate changes made during the period October 1914 to April 1948, inclusive. Succeeding supplements were issued in January 1949, covering increases made effective August 21, 1948, pursuant to findings in the final report in Ex Parte No. 166; and in March 1950, showing the interim increases made effective January 11, 1949, and final increases effective September 1, 1949, pursuant to findings in Ex Parte 168. This pamphlet and its supplements are handy reference tools for anyone concerned with the history of rate cases.

Annual Report of the Armour Research Foundation of Illinois Institute of Technology, 1951. 56 pages. Illinois Institute of Technology, Technology Center, Chicago 16. Free.

"Fifteen Years of Research" keynote this report. Scientific progress on a wide variety of research projects and an increase of one-third in volume of investment by sponsors are revealed. Among projects of particular interest to railroads are those on compression tests of freight cars, sponsored by the Pressed Steel Car Company; dynamic and fatigue study of railway cars (completed during the year), and noise reduction in a subway system.

OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAYS

Compiled from 127 monthly reports of revenues and expenses representing 131 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF OCTOBER 1951 AND 1950

Item	United States		Eastern District		Southern District		Western District	
	1951	1950	1951	1950	1951	1950	1951	1950
Miles of road operated at close of month	225,860	226,267	53,246	53,334	45,900	46,037	126,714	126,896
Revenues:								
Freight	$816,181,701	$784,544,181	$292,336,026	$280,229,030	$167,452,085	$154,311,073	$356,393,590	$350,004,078
Passenger	71,128,606	66,270,934	38,056,566	35,442,129	9,680,035	9,170,806	23,392,005	21,657,999
Mail	29,132,665	[1]28,737,368	11,851,781	10,368,367	6,858,031	5,691,116	10,422,853	12,677,885
Express	8,845,115	8,404,071	3,291,942	3,324,926	1,286,776	1,353,320	4,266,397	3,725,825
All other operating revenues	40,263,539	37,426,680	17,537,468	16,639,878	7,030,646	5,757,622	15,695,425	15,029,180
Railway operating revenues	965,551,626	925,383,234	363,073,783	346,004,330	192,307,573	176,283,937	410,170,270	403,094,967
Expenses:								
Maintenance of way and structures	132,515,157	118,353,867	49,376,811	45,016,081	26,757,952	24,240,996	56,380,394	49,096,790
Depreciation	11,267,049	10,947,606	4,664,715	4,575,893	2,083,098	1,985,687	4,519,236	4,386,026
Retirements	2,603,558	2,095,104	695,019	954,004	462,591	299,350	1,445,948	841,750
Deferred maintenance	*122,726	*61,936	*92,784	*525	*23,343	*5,168	*6,599	*56,243
Amortization of defense projects	162,950	145,210	94,144	15,841	38,223	43,930	30,583	85,439
Equalization	*1,136,797	*2,265,182	54,290	*1,435,601	*636,448	*1,247,587	*554,639	418,006
All other	119,741,123	107,493,065	43,961,427	40,906,469	24,833,831	23,164,784	50,945,865	43,421,812
Maintenance of equipment	171,077,782	153,693,758	70,865,220	66,096,732	35,812,138	28,637,335	64,400,424	58,959,691
Depreciation	26,462,010	25,523,096	9,809,605	9,542,900	5,736,642	5,641,926	10,915,763	10,338,270
Retirements	*117,271	*146,883	*17,013	*14,296	*47,703	*14,824	*52,555	*117,763
Deferred maintenance and major repairs	*920,686	*183,248	*918,789	*82,166	*1,897	*9,732	.....	*91,350
Amortization of defense projects	5,143,131	1,134,304	2,531,078	423,552	1,725,092	218,895	886,961	491,857
Equalization	*515,621	*30,483	*16,041	*814,774	*42,046	194,133	*457,534	590,158
All other	141,026,219	127,396,972	59,476,380	57,041,516	28,442,050	22,606,937	53,107,789	47,748,519
Traffic	18,133,586	16,215,860	5,994,665	5,496,314	3,824,013	3,430,343	8,314,908	7,289,203
Transportation—Rail line	341,232,651	314,219,957	141,677,795	133,890,227	60,200,945	54,745,472	139,353,911	125,584,258
Miscellaneous operations	10,286,396	9,366,645	3,654,595	3,283,371	1,441,760	1,276,593	5,190,041	4,806,681
General	26,262,166	23,167,774	10,038,335	9,210,496	5,653,532	4,897,849	10,570,299	9,059,429
Railway operating expenses	699,507,738	635,017,861	281,607,421	262,993,221	133,690,340	117,228,588	284,209,977	254,796,052
Net revenue from railway operations	266,043,888	290,365,373	81,466,362	83,011,109	58,617,233	59,055,349	125,960,293	148,298,915
Railway tax accruals	126,091,625	139,194,238	38,581,041	39,879,401	35,334,953	31,256,846	52,175,631	68,057,991
Pay-roll taxes	24,452,050	23,454,903	9,964,282	9,755,212	4,648,100	4,325,905	9,839,668	9,373,786
Federal income taxes†	71,238,939	86,904,307	17,780,989	19,899,279	23,772,064	20,724,539	29,685,886	46,280,499
All other taxes	30,400,636	28,835,028	10,835,770	10,224,910	6,914,789	6,206,412	12,650,077	12,403,706
Railway operating income	139,952,263	151,171,135	42,885,321	43,131,708	23,282,280	27,798,503	73,784,662	80,240,924
Equipment rents—Dr. balance	14,245,416	13,428,151	7,028,960	5,938,612	*1,202,448	*1,669,845	8,418,904	9,159,384
Joint facility rent—Dr. balance	3,807,147	3,283,354	1,956,054	1,429,176	577,116	483,952	1,273,977	1,370,226
Net railway operating income	121,899,700	134,459,630	33,900,307	35,763,920	23,907,612	28,984,396	64,091,781	69,711,314
Ratio of expenses to revenues (percent)	72.4	68.6	77.6	76.0	69.5	66.5	69.3	63.2

FOR THE TEN MONTHS ENDED WITH OCTOBER 1951 AND 1950

Item	United States		Eastern District		Southern District		Western District	
	1951	1950	1951	1950	1951	1950	1951	1950
Miles of road operated at close of month	225,937	226,455	53,277	53,351	45,948	46,103	126,712	127,001
Revenues:								
Freight	$7,201,568,838	$6,433,018,287	$2,646,178,908	$2,379,075,068	$1,507,568,054	$1,312,019,483	$3,047,821,876	$2,741,923,736
Passenger	740,276,627	668,261,700	376,739,830	352,888,365	115,569,931	100,088,209	247,966,866	215,285,126
Mail	208,152,753	[1]200,285,516	81,948,391	69,554,591	36,118,273	34,096,377	90,086,089	96,634,548
Express	65,721,593	64,138,233	21,572,606	20,314,555	10,870,832	10,954,618	33,278,155	32,869,060
All other operating revenues	368,393,569	317,375,849	164,754,068	141,137,252	63,367,019	51,819,973	140,272,482	124,418,624
Railway operating revenues	8,584,113,380	7,683,079,585	3,291,193,803	2,962,969,831	1,733,494,109	1,508,978,660	3,559,425,468	3,211,131,094
Expenses:								
Maintenance of way and structures	1,246,280,370	1,069,399,144	445,042,606	379,977,880	260,436,666	224,594,455	540,801,098	464,826,809
Depreciation	111,751,127	109,462,306	46,154,314	46,215,505	20,729,519	19,641,784	44,867,294	43,605,017
Retirements	15,553,722	12,823,636	5,469,130	4,640,689	3,106,001	2,393,963	6,978,591	5,788,984
Deferred maintenance	*1,688,446	*1,745,176	*1,476,792	*1,025,808	*205,056	*266,026	*6,598	*453,342
Amortization of defense projects	1,178,843	1,499,967	360,813	172,797	362,356	445,506	455,674	881,664
Equalization	2,666,411	*550,742	*1,573,449	*4,125,676	4,091,969	4,350,311	147,891	*775,377
All other	1,116,818,713	947,909,153	396,108,590	334,100,373	232,351,877	198,028,917	488,358,246	415,779,863
Maintenance of equipment	1,649,870,297	1,393,454,410	683,947,605	586,731,618	332,357,457	269,816,129	633,565,235	536,906,663
Depreciation	262,456,185	246,724,421	96,153,136	91,758,678	57,648,636	55,196,750	108,654,413	99,768,993
Retirements	*1,871,254	*580,863	*946,505	*88,942	*508,887	*199,909	*415,862	*292,012
Deferred maintenance and major repairs	*13,587,188	*9,468,091	*13,389,685	*8,747,976	*20,078	*122,957	*177,425	*597,158
Amortization of defense projects	38,378,220	12,115,424	17,747,520	4,486,777	10,735,959	2,349,156	9,894,741	5,279,491
Equalization	733,638	4,310,220	*45,579	2,001,431	652,332	1,101,354	126,885	1,207,435
All other	1,363,760,696	1,140,353,299	584,428,718	497,321,650	263,849,495	211,491,735	515,482,483	431,539,914
Traffic	176,217,779	159,038,985	58,755,405	54,052,239	37,283,388	33,174,832	80,178,986	71,811,914
Transportation—Rail line	3,290,348,754	2,856,866,692	1,381,805,062	1,212,160,953	590,719,631	514,976,714	1,317,824,061	1,129,729,025
Miscellaneous operations	103,653,406	91,529,872	35,803,243	32,244,752	15,817,619	13,587,513	52,032,544	45,697,607
General	253,326,247	224,923,834	96,740,558	87,705,958	54,114,824	48,033,980	102,470,865	89,183,896
Railway operating expenses	6,719,696,853	5,795,212,937	2,702,094,479	2,352,873,400	1,290,729,585	1,104,183,623	2,726,872,789	2,338,155,914
Net revenue from railway operations	1,864,416,527	1,887,866,648	589,099,324	610,096,431	442,764,524	404,795,037	832,552,679	872,975,180
Railway tax accruals	982,295,028	922,105,384	296,238,130	285,671,822	254,168,527	216,457,905	431,888,371	419,975,657
Pay-roll taxes	239,569,163	216,599,898	97,809,507	89,077,486	45,818,474	40,833,336	95,941,182	86,689,076
Federal income taxes†	448,806,239	429,227,946	93,460,425	98,547,824	145,228,164	116,120,552	210,117,650	214,559,570
All other taxes	293,919,626	276,277,540	104,968,198	98,046,512	63,121,889	59,504,017	125,829,539	118,727,011
Railway operating income	882,121,499	965,761,264	292,861,194	324,424,609	188,595,997	188,337,132	400,664,308	452,999,523
Equipment rents—Dr. balance	132,816,389	117,924,579	59,175,496	56,684,875	*4,759,463	*13,514,872	78,400,356	74,754,576
Joint facility rent—Dr. balance	36,570,638	32,764,381	17,977,920	15,342,266	5,056,255	4,978,325	13,536,463	12,443,790
Net railway operating income	712,734,472	815,072,304	215,707,778	252,397,468	188,299,205	196,873,679	308,727,489	365,801,157
Ratio of expenses to revenues (percent)	78.3	75.4	82.1	79.4	74.5	73.2	76.6	72.8

†Includes income tax, surtax, and excess profits tax.
*Decrease, deficit or other reverse item.
[1]Includes the following amounts of additional railway mail pay accrued under the Post Office Dept. stipulation dated Oct. 11, 1950; $13,906,194 for the period Feb. 19, 1947 to Dec. 31, 1949; and $5,164,729 for the period Jan. 1, 1950 to Oct. 31, 1950. Excludes $845,665 accrued by certain carriers in Delayed Income Credits.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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